

L Number	Hits	Search Text	DB	Time stamp
1	4	("5882355" "6117833" "6242409" "6245115").pn.	USPAT; US-PGPUB	2003/09/16 17:11
2	3	((("5882355" "6117833" "6242409" "6245115").pn.) and (ligand or complex)	USPAT; US-PGPUB	2003/09/16 17:11
3	4	((("5882355" "6117833" "6242409" "6245115").pn.) and (ligand or complex)	USPAT; US-PGPUB	2003/09/16 17:21
4	4	((("5882355" "6117833" "6242409" "6245115").pn.) and (ligand or complex)) and (pyridyl or pyridin\$3)	USPAT; US-PGPUB	2003/09/16 17:21
5	17312	bleach\$ and (ligand or complex)	USPAT; US-PGPUB	2003/09/16 17:21
6	5980	(bleach\$ and (ligand or complex)) and (pyridyl or pyridin\$3)	USPAT; US-PGPUB	2003/09/16 17:21
7	113	((bleach\$ and (ligand or complex)) and (pyridyl or pyridin\$3)) and diaza	USPAT; US-PGPUB	2003/09/16 17:22

SEARCH REQUEST FORM

Access DB# 1040911

Scientific and Technical Information Center

Requester's Full Name: Cephia Toomer Examiner #: 71652 Date: 9/16/03
 Art Unit: 1714 Phone Number 30 8-2509 Serial Number: 101021884
 Mail Box and Bldg/Room Location: CP34D11 Results Format Preferred (circle): PAPER DISK E-MAIL

If more than one search is submitted, please prioritize searches in order of need.

 Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: Ligand and complex for catalytically bleaching a substrate
 Inventors (please provide full names): Baezel et al

Earliest Priority Filing Date: 12/15/2000

For Sequence Searches Only Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.

Please search claims. Attached is examples of preferred compounds. Also claim 18 is a list of compds. wherein the compound of the invention is not one of those listed. Claim 20 is directed to a compound per se. Please note that claims 1-17 are directed to a bleaching composition and claims 18-19 are should be directed to the compound (Applicant did not draft claim in the correct format. BIB sheet attached.

Thanks

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Searcher: K. Fuller
 Searcher Phone #: _____
 Searcher Location: _____
 Date Searcher Picked Up: _____
 Date Completed: 9/23/03
 Searcher Prep & Review Time: 30
 Clerical Prep Time: _____
 Online Time: 90

Type of Search

NA Sequence (#) _____
 AA Sequence (#) _____
 Structure (#) 6
 Bibliographic _____
 Litigation _____
 Fulltext _____
 Patent Family _____
 Other _____

Vendors and cost where applicable

STN 6
 Dialog _____
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 Other (specify) _____

=> FILE REG

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STRUCTURE FILE UPDATES: 22 SEP 2003 HIGHEST RN 591204-55-6
DICTIONARY FILE UPDATES: 22 SEP 2003 HIGHEST RN 591204-55-6

TSCA INFORMATION NOW CURRENT THROUGH JULY 14, 2003

Please note that search-term pricing does apply when
conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. See HELP
PROPERTIES for more information. See STNote 27, Searching Properties
in the CAS Registry File, for complete details:
<http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf>

=> FILE HCAPLUS

FILE 'HCAPLUS' ENTERED AT 10:22:56 ON 23 SEP 2003
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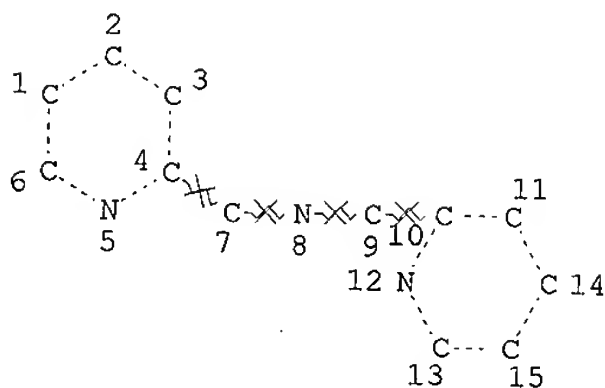
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FILE COVERS 1907 - 23 Sep 2003 VOL 139 ISS 13
FILE LAST UPDATED: 22 Sep 2003 (20030922/ED)

This file contains CAS Registry Numbers for easy and accurate
substance identification.

=> D QUE L15

L3 STR



20,763 structures -
broad search covering
Claim 1

NODE ATTRIBUTES:

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NSPEC      IS RC      AT      7
NSPEC      IS RC      AT      8
NSPEC      IS RC      AT      9
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

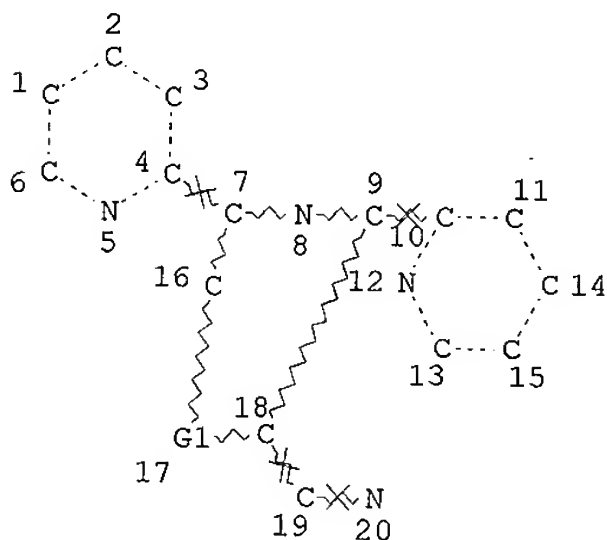
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GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 15

STEREO ATTRIBUTES: NONE

L5 20763 SEA FILE=REGISTRY SSS FUL L3
L8 STR



Subset search
More exact
293 structures

REP G1=(0-3) C

NODE ATTRIBUTES:

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NSPEC      IS RC      AT 19
NSPEC      IS RC      AT 20
DEFAULT    MLEVEL IS ATOM
MLEVEL     IS CLASS   AT 16 18
DEFAULT    ECLEVEL IS LIMITED
ECOUNT     IS UNLIMITED AT 16 18

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GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 20

STEREO ATTRIBUTES: NONE

L11 293 SEA FILE=REGISTRY SUB=L5 SSS FUL L8
 L13 43 SEA FILE=HCAPLUS ABB=ON L11
 L14 26 SEA FILE=HCAPLUS ABB=ON L13(L) (PREP OR IMF OR SPN)/RL
 L15 4 SEA FILE=HCAPLUS ABB=ON L14 AND BLEACH?

4 CA references on preparation of the compounds and bleach?

=> D L15 1-4 ALL HITSTR

L15 ANSWER 1 OF 4 HCAPLUS COPYRIGHT 2003 ACS on STN
 AN 2002:676132 HCAPLUS
 DN 137:203051
 TI Storage-stable enzymatic liquid **bleaching** detergent containing boron enzymatic stabilizer
 IN Adriaanse, Arend Jan; Van Dijk, Willem Robert; Hage, Ronald; Ouwendijk, Marja; Veerman, Simon Marinus
 PA Unilever N.V., Neth.; Unilever PLC; Hindustan Lever Ltd.
 SO PCT Int. Appl., 131 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 IC ICM C11D003-386
 ICS C11D003-39
 CC 46-5 (Surface Active Agents and Detergents)
 Section cross-reference(s): 67, 78
 FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2002068574	A1	20020906	WO 2002-EP1363	20020211
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
US 2002198127	A1	20021226	US 2002-84799	20020226
PRAI GB 2001-4980	A	20010228		
OS MARPAT 137:203051				

AB An aq. liq. cleaning compn., having a pH of at least 7, comprises 1-90 wt% of surfactant, a proteolytic enzyme, and a primary stabilizer therefor. The compn. further comprises an org. substance, forming a complex with a transition metal. The transition metal complex is capable of catalyzing **bleaching** of a substrate by atm. oxygen. Thus, a transition metal complex was synthesized by complexing N,N-bis(pyridin-2-yl-methyl)-1,1-bis(pyridin-2-yl)-1-aminoethane with iron dichloride tetrahydrate in methanol. The obtained N,N-bis (pyridin-2-yl-methyl)-1,1-bis(pyridin-2-yl)-1-aminoethane iron dichloride (0.1%) was mixed with protease enzyme (4% active) 0.4, sodium tetraborate (enzymic stabilizer) 3.82, sodium citrate 4.01, monoethanolamine 0.2, surfactants, and other ingredients in water to give a liq. detergent (pH = 7.4), exhibiting excellent storage stability.

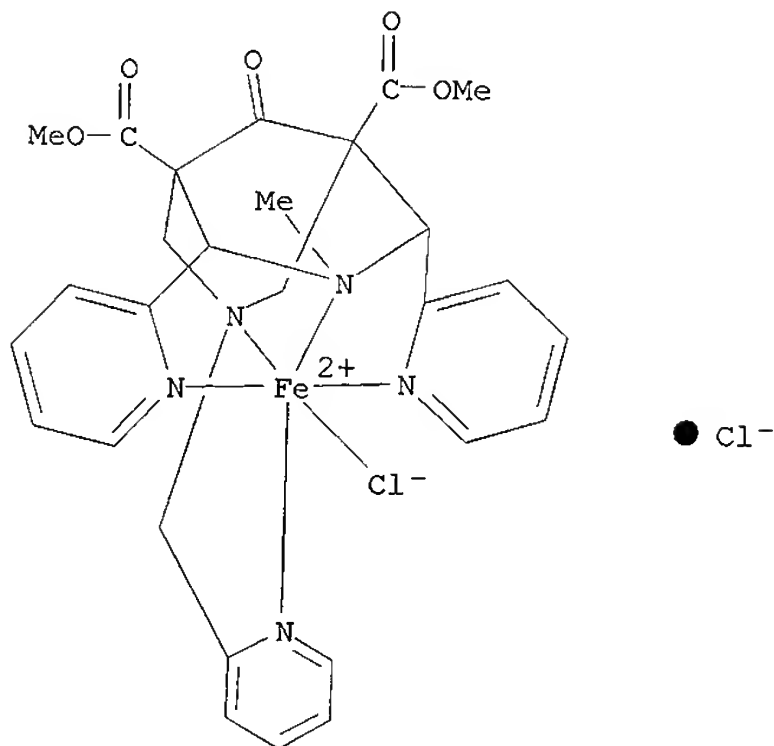
ST proteolytic enzymic liq cleaning boron stabilizer transition metal **bleaching**

IT Transition metal complexes

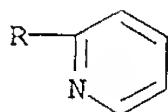
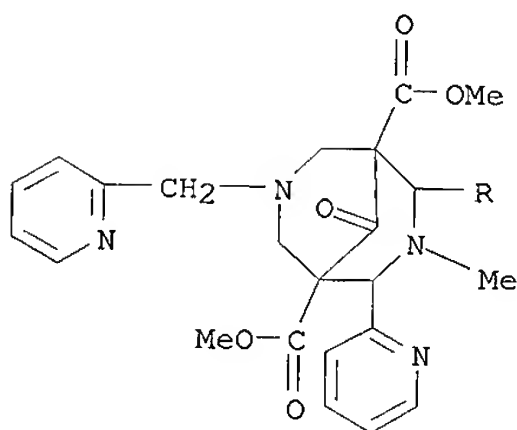
RL: MOA (Modifier or additive use); USES (Uses)

- (bleaching catalyst; formulation of proteolytic enzymic liq. cleaning compns. contg. boron enzymic stabilizer, and transition metal complex)
- IT Detergents
(bleaching; formulation of proteolytic enzymic liq. cleaning compns. contg. boron enzymic stabilizer, and transition metal complex)
- IT Bleaching agents
Detergent builders
Stabilizing agents
Surfactants
(formulation of proteolytic enzymic liq. cleaning compns. contg. boron enzymic stabilizer, and transition metal complex)
- IT Detergents
(laundry, enzyme-contg.; formulation of proteolytic enzymic liq. cleaning compns. contg. boron enzymic stabilizer, and transition metal complex)
- IT Detergents
(laundry, liq.; formulation of proteolytic enzymic liq. cleaning compns. contg. boron enzymic stabilizer, and transition metal complex)
- IT Peptides, uses
RL: MOA (Modifier or additive use); USES (Uses)
(modified, primary stabilizer; formulation of proteolytic enzymic liq. cleaning compns. contg. boron enzymic stabilizer, and transition metal complex)
- IT 116633-52-4 129315-15-7, Iron N,N,N',N'-tetrakis(Pyridin-2-yl-methyl)ethylenediamine bis(hexafluorophosphate) 290299-33-1, N,N,N'-Tris(pyridin-2-yl-methyl)ethanediamine iron chloride hexafluorophosphate 357967-50-1, N,N-Bis (pyridin-2-yl-methyl)-1,1-bis(pyridin-2-yl)-1-aminomethane iron(II) dichloride
RL: CAT (Catalyst use); USES (Uses)
(bleaching catalyst; formulation of proteolytic enzymic liq. cleaning compns. contg. boron enzymic stabilizer, and transition metal complex)
- IT 328564-06-3P, N,N-Bis (pyridin-2-yl-methyl)-1,1-bis(pyridin-2-yl)-1-aminoethane iron dichloride 437985-26-7P, Chloro[dimethyl 2,4-di-(2-pyridyl)-3-methyl-7-(pyridin-2-ylmethyl)-3,7-diazabicyclo[3.3.1]nonan-9-one-1,5-dicarboxylate]iron(II)-chloride hydrate
RL: CAT (Catalyst use); IMF (Industrial manufacture); PRP (Properties); PREP (Preparation); USES (Uses)
(bleaching catalyst; formulation of proteolytic enzymic liq. cleaning compns. contg. boron enzymic stabilizer, and transition metal complex)
- IT 9001-92-7, Proteolytic enzyme
RL: CAT (Catalyst use); USES (Uses)
(formulation of proteolytic enzymic liq. cleaning compns. contg. boron enzymic stabilizer, and transition metal complex)
- IT 9014-01-1, Subtilisin 37259-58-8D, Serine protease, modified
RL: TEM (Technical or engineered material use); USES (Uses)
(formulation of proteolytic enzymic liq. cleaning compns. contg. boron enzymic stabilizer, and transition metal complex)
- IT 94543-37-0P, Dimethyl 2,6-di-(2-pyridyl)-1-methylpiperid-4-one-3,5-dicarboxylate
RL: IMF (Industrial manufacture); PRP (Properties); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(intermediate; formulation of proteolytic enzymic liq. cleaning compns. contg. boron enzymic stabilizer, and transition metal complex)
- IT 437985-12-1P, Dimethyl 2,4-di-(2-pyridyl)-3-methyl-7-(pyridin-2-ylmethyl)-3,7-diazabicyclo[3.3.1]nonan-9-one-1,5-dicarboxylate

- RL: IMF (Industrial manufacture); PRP (Properties); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(ligand, starting material; formulation of proteolytic enzymic liq. cleaning compns. contg. boron enzymic stabilizer, and transition metal complex)
- IT 16858-02-9, N,N,N',N'-Tetrakis(Pyridin-2-yl-methyl)ethylenediamine
104170-15-2 167695-87-6, N,N-Bis(pyridin-2-yl-methyl)-1,1-bis(pyridin-2-yl)aminomethane 223504-10-7, N,N-Bis(pyridin-2-yl-methyl)-1,1-bis(pyridin-2-yl)-1-aminoethane
RL: RCT (Reactant); RACT (Reactant or reagent)
(ligand, starting material; formulation of proteolytic enzymic liq. cleaning compns. contg. boron enzymic stabilizer, and transition metal complex)
- IT 1330-43-4, Sodium tetraborate 7440-70-2, Calcium, uses 7775-19-1, Sodium metaborate 10043-35-3, Boric acid, uses
RL: MOA (Modifier or additive use); USES (Uses)
(primary stabilizer; formulation of proteolytic enzymic liq. cleaning compns. contg. boron enzymic stabilizer, and transition metal complex)
- IT 50-00-0, Formaldehyde, reactions 74-89-5, Methylamine, reactions
1121-60-4, Picolylaldehyde 1830-54-2, Acetone dicarboxylic acid dimethyl ester 3731-51-9, 2-Aminomethylpyridine 7758-94-3, Iron dichloride 13478-10-9, Iron dichloride tetrahydrate
RL: RCT (Reactant); RACT (Reactant or reagent)
(starting material; formulation of proteolytic enzymic liq. cleaning compns. contg. boron enzymic stabilizer, and transition metal complex)
- IT 437985-26-7P, Chloro[dimethyl 2,4-di-(2-pyridyl)-3-methyl-7-(pyridin-2-ylmethyl)-3,7-diazabicyclo[3.3.1]nonan-9-one-1,5-dicarboxylate]iron(II)-chloride hydrate
RL: CAT (Catalyst use); IMF (Industrial manufacture); PRP (Properties); PREP (Preparation); USES (Uses)
(bleaching catalyst; formulation of proteolytic enzymic liq. cleaning compns. contg. boron enzymic stabilizer, and transition metal complex)
- RN 437985-26-7 HCAPLUS
CN Iron(1+), chloro[rel-(1R,2S,4R,5S)-dimethyl 3-methyl-9-oxo-2,4-di(2-pyridinyl-.kappa.N)-7-[(2-pyridinyl-.kappa.N)methyl]-3,7-diazabicyclo[3.3.1]nonane-1,5-dicarboxylate-.kappa.N3,.kappa.N7]-, chloride, (OC-6-63)- (9CI) (CA INDEX NAME)



IT 437985-12-1P, Dimethyl 2,4-di-(2-pyridyl)-3-methyl-7-(pyridin-2-ylmethyl)-3,7-diazabicyclo[3.3.1]nonan-9-one-1,5-dicarboxylate
 RL: IMF (Industrial manufacture); PRP (Properties); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
 (ligand, starting material; formulation of proteolytic enzymic liq. cleaning compns. contg. boron enzymic stabilizer, and transition metal complex)
 RN 437985-12-1 HCAPLUS
 CN 3,7-Diazabicyclo[3.3.1]nonane-1,5-dicarboxylic acid, 3-methyl-9-oxo-2,4-di-2-pyridinyl-7-(2-pyridinylmethyl)-, dimethyl ester (9CI) (CA INDEX NAME)



L15 ANSWER 2 OF 4 HCAPLUS COPYRIGHT 2003 ACS on STN
 AN 2002:487706 HCAPLUS
 DN 137:64938
 TI Enhancement of air **bleaching** catalysts
 IN Appel, Rene; Hage, Ronald; Van der Hoeven, Philippus Cornelis; Lienke, Joachim; Smith, Richard George
 PA Unilever PLC, UK; Unilever NV; Hindustan Lever Limited
 SO PCT Int. Appl., 33 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 IC ICM C11D003-39
 ICS C11D003-28
 CC 46-5 (Surface Active Agents and Detergents)
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002050229	A1	20020627	WO 2001-EP13196	20011113
	W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
	RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
	AU 2002017030	A5	20020701	AU 2002-17030	20011113
	GB 2385866	A1	20030903	GB 2003-9155	20011113
	US 2002169096	A1	20021114	US 2001-13620	20011211
	US 6518231	B2	20030211		
PRAI	GB 2000-30877	A	20001218		
	WO 2001-EP13196	W	20011113		
AB	The invention relates to catalytically bleaching substrates, esp. laundry fabrics, with atm. oxygen or air in the presence to an air bleaching facilitator.				
ST	air bleaching agent catalyst				
IT	Bleaching agents				
	Oxidation catalysts				
	(enhancement of air bleaching catalysts)				
IT	16858-02-9D, iron complex	212697-49-9	260395-33-3	260395-37-7	
	328564-06-3	329279-17-6			
	RL: CAT (Catalyst use); USES (Uses)				
	(enhancement of air bleaching catalysts)				
IT	439153-63-6P				
	RL: CAT (Catalyst use); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)				
	(enhancement of air bleaching catalysts)				
IT	822-17-3, Sodium linoleate				
	RL: TEM (Technical or engineered material use); USES (Uses)				
	(enhancement of air bleaching catalysts)				
IT	1121-60-4, 2-Pyridinecarboxaldehyde 1830-54-2, Dimethyl acetonedicarboxylate 3731-51-9, 2-Pyridinemethanamine				
	RL: RCT (Reactant); RACT (Reactant or reagent)				
	(prepn. of air bleaching catalysts)				
IT	437985-06-3P 437985-15-4P				
	RL: RCT (Reactant); SPN (Synthetic preparation); PREP				

(Preparation); RACT (Reactant or reagent)
(prepn. of air **bleaching** catalysts)

RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE

- (1) Procter & Gamble; WO 0060045 A 2000 HCAPLUS
- (2) Unilever Plc; WO 0012667 A 2000 HCAPLUS
- (3) Unilever Plc; WO 0116268 A 2001 HCAPLUS
- (4) Unilever Plc; WO 0116271 A 2001 HCAPLUS

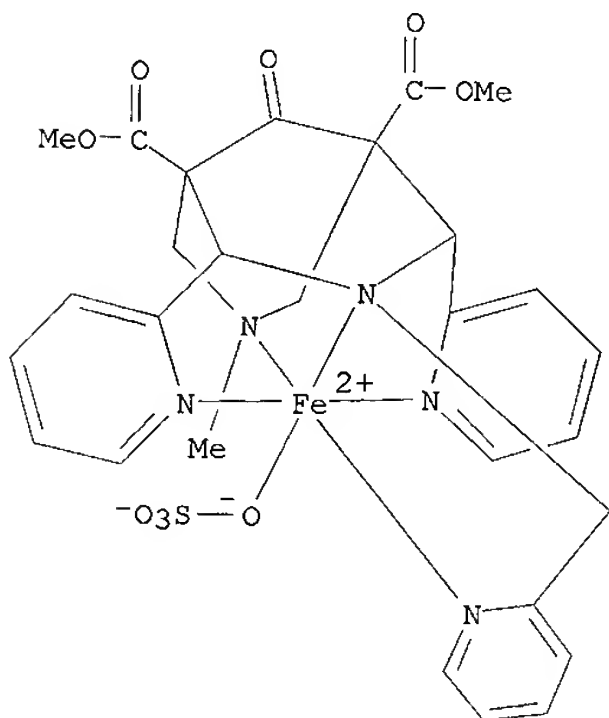
IT 439153-63-6P

RL: CAT (Catalyst use); SPN (Synthetic preparation); PREP
(Preparation); USES (Uses)

(enhancement of air **bleaching** catalysts)

RN 439153-63-6 HCAPLUS

CN Iron, [rel-dimethyl (1R,2S,4R,5S)-7-methyl-9-oxo-2,4-di(2-pyridinyl-.kappa.N)-3-[(2-pyridinyl-.kappa.N)methyl]-3,7-diazabicyclo[3.3.1]nonane-1,5-dicarboxylate-.kappa.N3,.kappa.N7][sulfato(2-)-.kappa.O]-, (OC-6-53)-(9CI) (CA INDEX NAME)

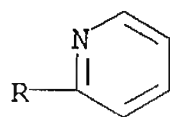
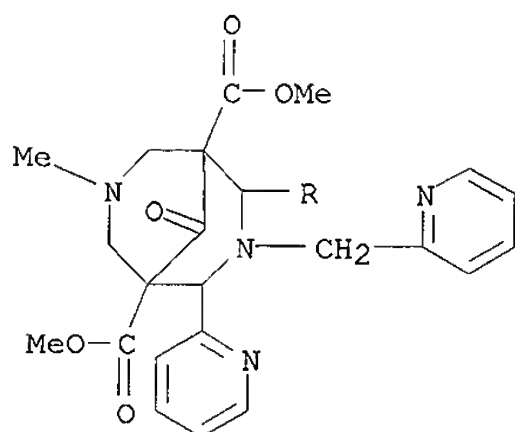


IT 437985-15-4P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP
(Preparation); RACT (Reactant or reagent)
(prepn. of air **bleaching** catalysts)

RN 437985-15-4 HCAPLUS

CN 3,7-Diazabicyclo[3.3.1]nonane-1,5-dicarboxylic acid, 7-methyl-9-oxo-2,4-di-2-pyridinyl-3-(2-pyridinylmethyl)-, dimethyl ester (9CI) (CA INDEX NAME)

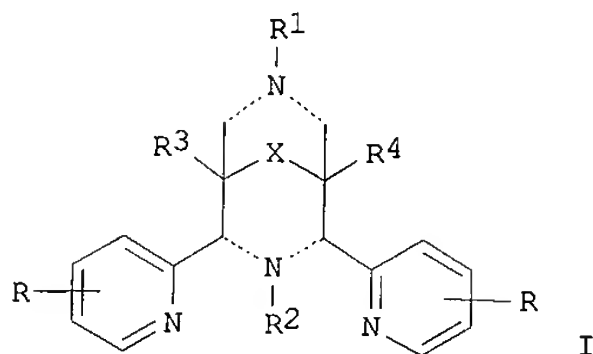


L15 ANSWER 3 OF 4 HCAPLUS COPYRIGHT 2003 ACS on STN
 AN 2002:466143 HCAPLUS
 DN 137:48918
 TI Ligand and complex for catalytically **bleaching** a substrate
 IN Boerzel, Heidi; Comba, Peter; Hage, Ronald; Kerscher, Marion; Lienke, Joachim; Merz, Michael
 PA Unilever PLC, UK; Unilever NV; Hindustan Lever Limited
 SO PCT Int. Appl., 47 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 IC ICM C11D003-16
 ICS C11D003-39; C07D471-08; C07D487-04; C07D487-08; C07D471-08;
 C07D223-00; C07D221-00; C07D487-04; C07D209-00; C07D209-00;
 C07D487-08; C07D223-00; C07D223-00; C07D487-08; C07D245-00;
 C07D225-00
 CC 46-6 (Surface Active Agents and Detergents)
 FAN.CNT 1

applicant

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002048301	A1	20020620	WO 2001-EP13314	20011115
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2002033187	A5	20020624	AU 2002-33187	20011115
US 2002149000	A1	20021017	US 2001-21884	20011214
PRAI GB 2000-30673	A	20001215		
WO 2001-EP13314	W	20011115		
OS MARPAT 137:48918				

GI



- AB Present invention relates to a **bleaching** compn. comprising: (a) a monomer ligand or transition metal catalyst thereof of a ligand having the formula (I); wherein R = H, F, Cl, Br, hydroxyl, C1-4 alkyl-O, NHCOH, NHCO C1-4 alkyl, NH2, NH C1-4 alkyl, and C1-4 alkyl; R1 and R2 = C1-4 alkyl, C6-10 aryl, and, a group contg. a heteroatom capable of coordinating to a transition metal, wherein at least one of R1 and R2 is the group contg. the heteroatom; R3 and R4 = H, C1-8 alkyl, C1-8 alkyl-O-C1-8 alkyl, C1-8 alkyl-O-C6-10 aryl, C6-10 aryl, C1-8 hydroxyalkyl, and (CH2)_nC(O)OR5 wherein R5 = H, C1-4 alkyl, n = 0-4, and mixts. thereof; and, X = C:O, [C(R6)₂]_y wherein Y = 0-3, R6 = H, hydroxyl, C1-4 alkoxy, C1-4 alkyl; and (b) the balance carriers and adjunct ingredient.
- ST ligand catalytically **bleaching** substrate
- IT Sulfonic acids, uses
 RL: TEM (Technical or engineered material use); USES (Uses)
 (alkanesulfonic, salts; ligand and complex for catalytically **bleaching** a substrate)
- IT Sulfonic acids, uses
 RL: TEM (Technical or engineered material use); USES (Uses)
 (alkanesulfonic, sodium salts; ligand and complex for catalytically **bleaching** a substrate)
- IT **Bleaching** agents
 (ligand and complex for catalytically **bleaching** a substrate)
- IT 328564-06-3P
 RL: CAT (Catalyst use); IMF (Industrial manufacture); PREP (Preparation); USES (Uses)
 (ligand and complex for catalytically **bleaching** a substrate)
- IT 94543-37-0P 197524-22-4P, Fe(NCCH3)₂(triflate)₂ 253304-60-8P
 437985-06-3P 437985-12-1P 437985-15-4P
 437985-19-8P
 RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
 (ligand and complex for catalytically **bleaching** a substrate)
- IT 437985-22-3P 437985-26-7P 437985-30-3P
 437985-33-6P
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (ligand and complex for catalytically **bleaching** a substrate)
- IT 50-00-0, Formaldehyde, reactions 74-89-5, Methylamine, reactions 75-05-8, Acetonitrile, reactions 1121-60-4, 2-Pyridinecarboxaldehyde 1493-13-6, Trifluoromethanesulfonic acid 1830-54-2, Dimethyl acetonedicarboxylate 3731-51-9, 2-Picolylamine 7439-89-6, Iron,

reactions 7447-39-4, Copper(II) chloride, reactions 7720-78-7, Iron(II) sulfate 7758-94-3, Iron(II) chloride 13478-10-9, Iron(II) chloride tetrahydrate 13933-23-8 54765-14-9, 2-Pyridineacetaldehyde 223504-10-7

RL: RCT (Reactant); RACT (Reactant or reagent)
(ligand and complex for catalytically **bleaching** a substrate)

IT 64-17-5, Ethanol, uses

RL: TEM (Technical or engineered material use); USES (Uses)
(ligand and complex for catalytically **bleaching** a substrate)

RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD

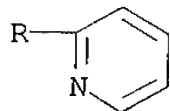
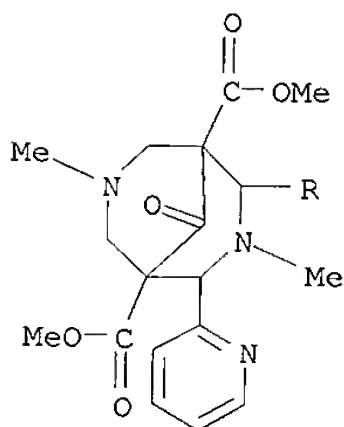
- RE
(1) Borzel, H; CHEM EUR J 1999, V5(6), P1716 HCAPLUS
(2) Haller, R; ARZNEIMITTEL FORSCH 1965, V15(11), P1327 HCAPLUS
(3) Kuhl, U; ARCH PHARM 2000, V333(7), P226 HCAPLUS
(4) Procter & Gamble; WO 0060045 A 2000 HCAPLUS

IT 253304-60-8P 437985-12-1P 437985-15-4P
437985-19-8P

RL: IMF (Industrial manufacture); RCT (Reactant); PREP
(Preparation); RACT (Reactant or reagent)
(ligand and complex for catalytically **bleaching** a substrate)

RN 253304-60-8 HCAPLUS

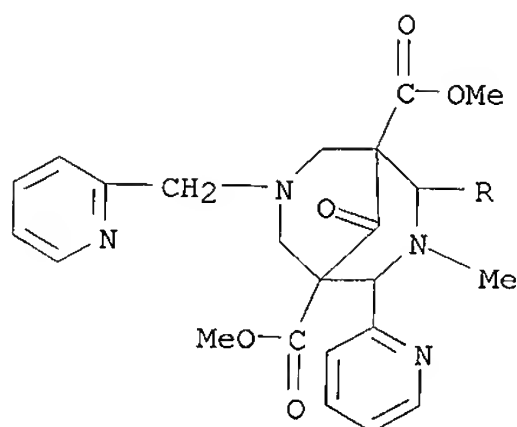
CN 3,7-Diazabicyclo[3.3.1]nonane-1,5-dicarboxylic acid, 3,7-dimethyl-9-oxo-2,4-di-2-pyridinyl-, dimethyl ester (9CI) (CA INDEX NAME)



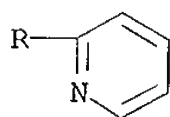
claim 19

RN 437985-12-1 HCAPLUS

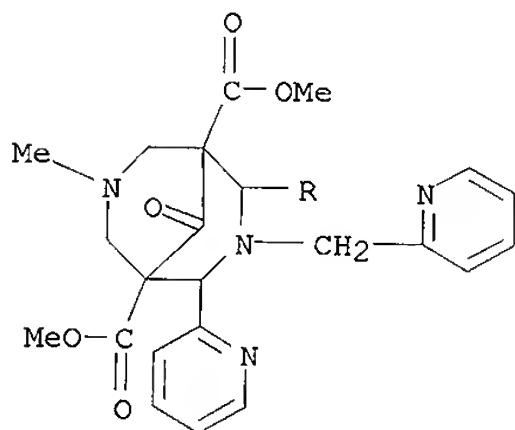
CN 3,7-Diazabicyclo[3.3.1]nonane-1,5-dicarboxylic acid, 3-methyl-9-oxo-2,4-di-2-pyridinyl-7-(2-pyridinylmethyl)-, dimethyl ester (9CI) (CA INDEX NAME)



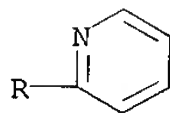
Claim 19



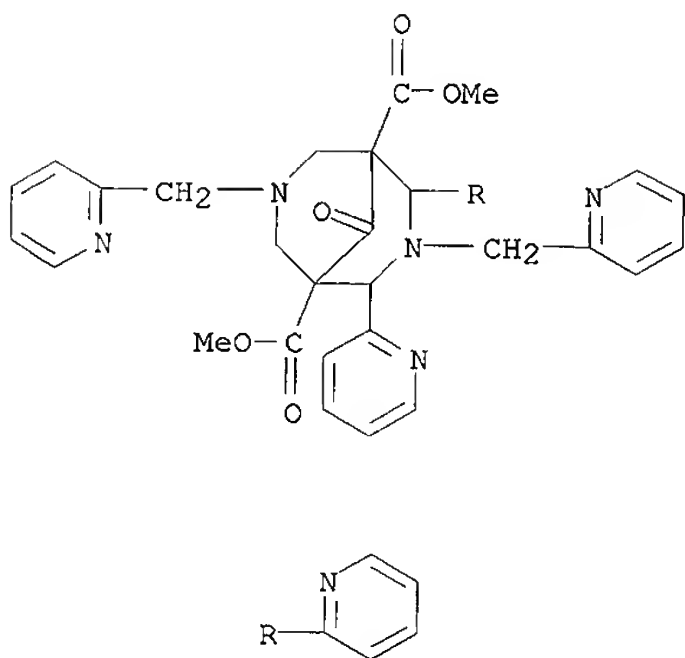
RN 437985-15-4 HCAPLUS
 CN 3,7-Diazabicyclo[3.3.1]nonane-1,5-dicarboxylic acid, 7-methyl-9-oxo-2,4-di-
 2-pyridinyl-3-(2-pyridinylmethyl)-, dimethyl ester (9CI) (CA INDEX NAME)



Claim 19



RN 437985-19-8 HCAPLUS
 CN 3,7-Diazabicyclo[3.3.1]nonane-1,5-dicarboxylic acid, 9-oxo-2,4-di-2-
 pyridinyl-3,7-bis(2-pyridinylmethyl)-, dimethyl ester (9CI) (CA INDEX
 NAME)

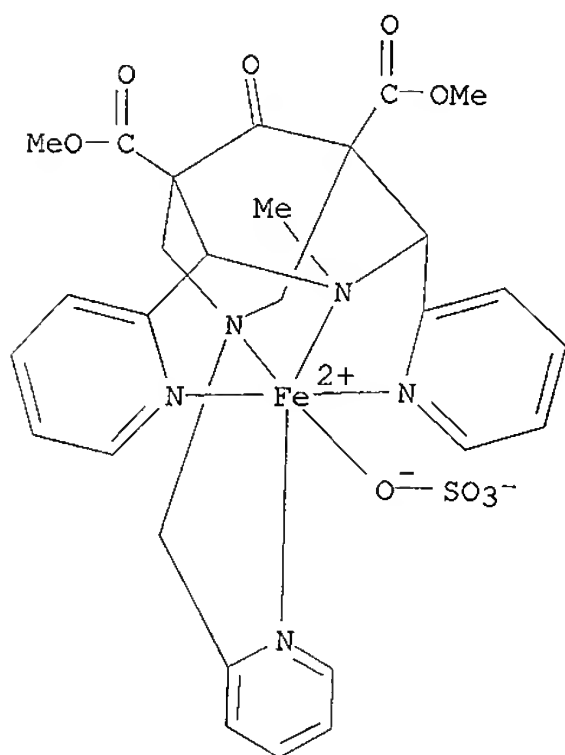


IT 437985-22-3P 437985-26-7P 437985-30-3P
437985-33-6P

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(ligand and complex for catalytically **bleaching** a substrate)

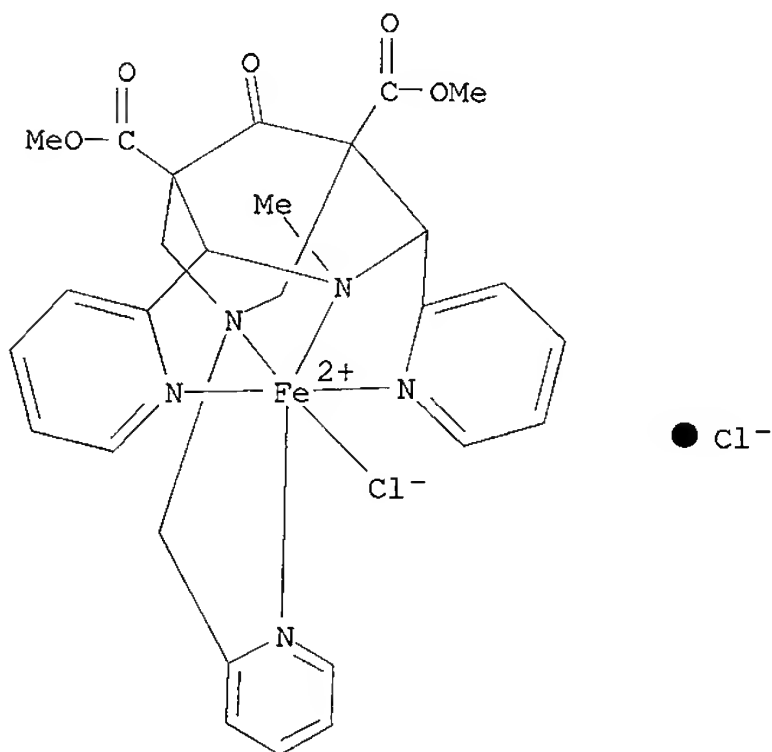
RN 437985-22-3 HCAPLUS

CN Iron, [rel-(1R,2S,4R,5S)-dimethyl 3-methyl-9-oxo-2,4-di(2-pyridinyl-.kappa.N)-7-[(2-pyridinyl-.kappa.N)methyl]-3,7-diazabicyclo[3.3.1]nonane-1,5-dicarboxylate-.kappa.N3,.kappa.N7][sulfato(2-)-.kappa.O]-, (OC-6-63)-(9CI) (CA INDEX NAME)



RN 437985-26-7 HCAPLUS

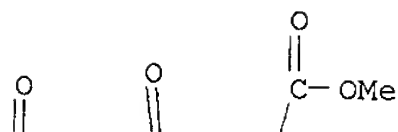
CN Iron(1+), chloro[rel-(1R,2S,4R,5S)-dimethyl 3-methyl-9-oxo-2,4-di(2-pyridinyl-.kappa.N)-7-[(2-pyridinyl-.kappa.N)methyl]-3,7-diazabicyclo[3.3.1]nonane-1,5-dicarboxylate-.kappa.N3,.kappa.N7]-, chloride, (OC-6-63)- (9CI) (CA INDEX NAME)



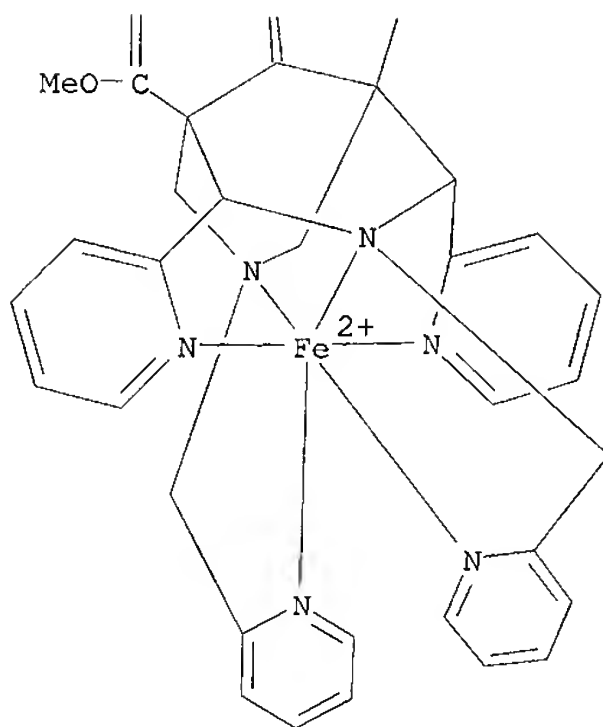
RN 437985-30-3 HCAPLUS

CN Iron(2+), [rel-dimethyl (1R,2S,4R,5S)-9-oxo-2,4-di(2-pyridinyl-.kappa.N)-3,7-bis[(2-pyridinyl-.kappa.N)methyl]-3,7-diazabicyclo[3.3.1]nonane-1,5-dicarboxylate-.kappa.N3,.kappa.N7]-, dichloride, (OC-6-26)- (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 2-A

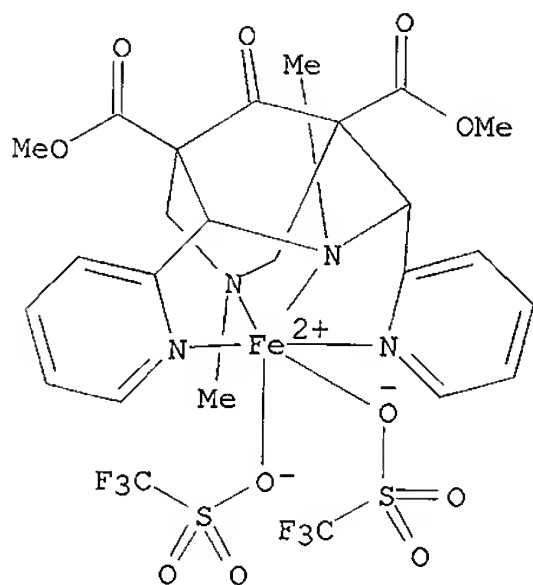


● 2 Cl⁻

RN 437985-33-6 HCAPLUS
 CN Iron, [rel-(1R,2S,4R,5S)-dimethyl 3,7-dimethyl-9-oxo-2,4-di(2-pyridinyl-
 .kappa.N)-3,7-diazabicyclo[3.3.1]nonane-1,5-dicarboxylate-
 .kappa.N3,.kappa.N7]bis(trifluoromethanesulfonato-.kappa.O)-, (OC-6-54)-

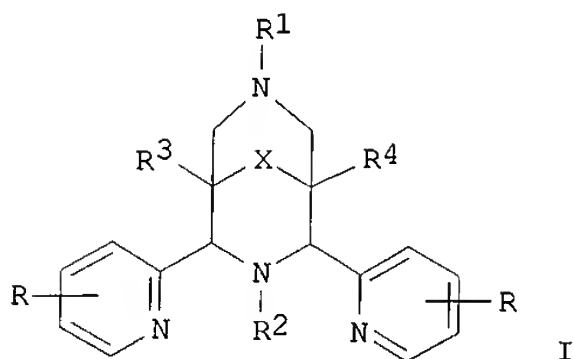
KATHLEEN FULLER EIC 1700/PARKER LAW 308-4290

(9CI) (CA INDEX NAME)



L15 ANSWER 4 OF 4 HCAPLUS COPYRIGHT 2003 ACS on STN
 AN 2000:725740 HCAPLUS
 DN 133:311159
 TI Transition metal catalysts in **bleaching** agents for fabrics
 IN Perkins, Christopher Mark
 PA Procter & Gamble Co., USA
 SO PCT Int. Appl., 51 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 IC ICM C11D003-395
 ICS C11D003-16
 CC 46-5 (Surface Active Agents and Detergents)
 Section cross-reference(s): 67
 FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000060045	A1	20001012	WO 2000-US8690	20000330
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
PRAI US 1999-127426P	P	19990401		
OS MARPAT 133:311159				
GI				



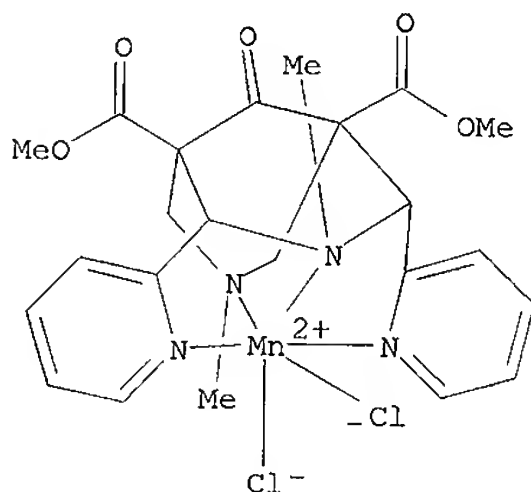
- AB A **bleaching** system comprises (a) .apprx.1 ppb transition metal catalyst comprising (i) a transition metal; and (ii) a ligand I, where R = H, OH, C1-4-alkyl, and mixts.; R1-2 = C1-4-alkyl, C6-C10 aryl, and mixts.; R3 and R4 = H, C1-8-alkyl, C1-C8 hydroxyalkyl, (CH2)xCO2R5; R5 = C1-4-alkyl, x = 0-4, and mixts.; X = carbonyl, C(R6)2, where R6 = R, (b) optionally a source of H2O2, and (c) the balance carriers and adjunct ingredients. An example **bleach** catalyst that was prepd. was 1,5-bis(hydroxymethylene)-3,7-dimethyl-2,4-bis(2-pyridyl)-3,7-diazabicyclo[3.3.1]nonan-9-ol manganese dichloride.
- ST transition metal **bleach** catalyst detergent; pyridyl diazabicyclononane ligand **bleach** catalyst
- IT Detergents
(laundry; transition metal catalysts in **bleaching** agents for fabrics)
- IT **Bleaching** agents
Oxidation catalysts
(transition metal catalysts in **bleaching** agents for fabrics)
- IT Transition metal complexes
RL: CAT (Catalyst use); IMF (Industrial manufacture); PREP (Preparation); USES (Uses)
(transition metal catalysts in **bleaching** agents for fabrics)
- IT 7722-84-1, Hydrogen peroxide, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(**bleach** source; transition metal catalysts in **bleaching** agents for fabrics)
- IT 13446-34-9, Manganese dichloride tetrahydrate
RL: RCT (Reactant); RACT (Reactant or reagent)
(in catalyst manuf.; transition metal catalysts in **bleaching** agents for fabrics)
- IT 253304-60-8 301826-49-3
RL: RCT (Reactant); RACT (Reactant or reagent)
(ligand; transition metal catalysts in **bleaching** agents for fabrics)
- IT 219957-02-5P 301833-23-8P
RL: CAT (Catalyst use); IMF (Industrial manufacture); PREP (Preparation); USES (Uses)
(transition metal catalysts in **bleaching** agents for fabrics)
- RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD
- RE
- (1) Collinson, S; WO 9839098 A 1998 HCAPLUS
- (2) Kuhling, D; US 3919102 A 1975 HCAPLUS
- (3) Unilever Plc; EP 0544519 A 1993 HCAPLUS
- IT 219957-02-5P 301833-23-8P
RL: CAT (Catalyst use); IMF (Industrial manufacture); PREP

(Preparation); USES (Uses)

(transition metal catalysts in **bleaching** agents for fabrics)

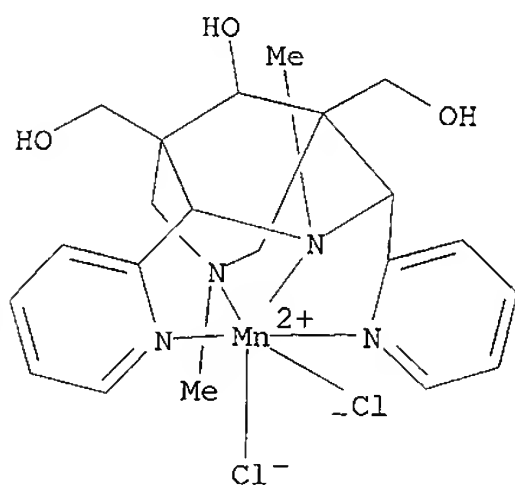
RN 219957-02-5 HCAPLUS

CN Manganese, dichloro[dimethyl (3-endo,7-endo)-3,7-dimethyl-9-oxo-6,8-di(2-pyridinyl-.kappa.N)-3,7-diazabicyclo[3.3.1]nonane-1,5-dicarboxylate-.kappa.N3,.kappa.N7]-, (OC-6-54)- (9CI) (CA INDEX NAME)



RN 301833-23-8 HCAPLUS

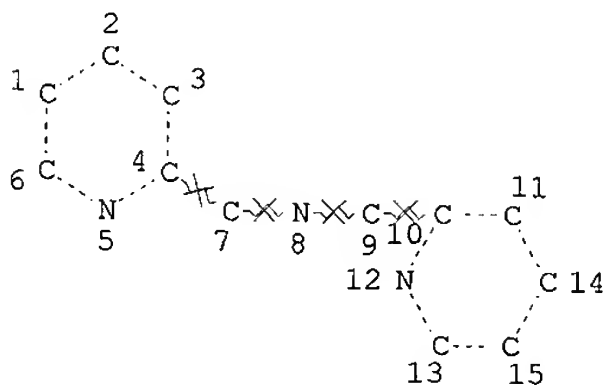
CN Manganese, dichloro[9-hydroxy-3,7-dimethyl-2,4-di(2-pyridinyl-.kappa.N)-3,7-diazabicyclo[3.3.1]nonane-1,5-dimethanol-.kappa.N3,.kappa.N7]-, stereoisomer (9CI) (CA INDEX NAME)



=> D QUE
L3

STR

*Remaining 22CA reference
on preparation
of the compounds
no utility
specified*



NODE ATTRIBUTES:

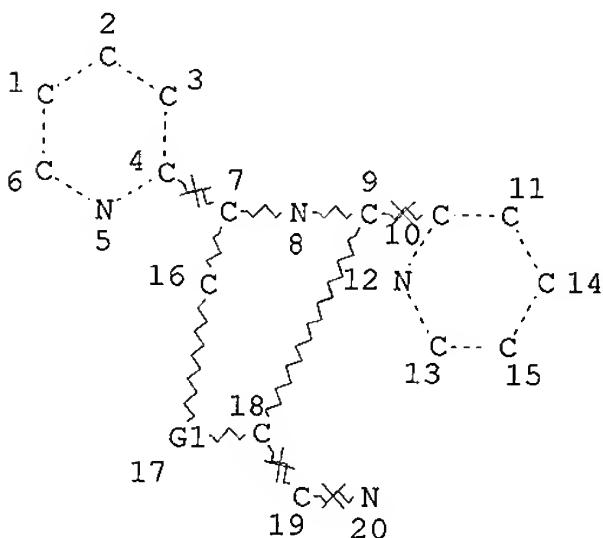
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NUMBER OF NODES IS 15

STEREO ATTRIBUTES: NONE

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L8 STR



REP G1=(0-3) C

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DEFAULT ECLEVEL IS LIMITED
ECOUNT IS UNLIMITED AT 16 18

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NUMBER OF NODES IS 20

STEREO ATTRIBUTES: NONE

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 L14 26 SEA FILE=HCAPLUS ABB=ON L13(L) (PREP OR IMF OR SPN)/RL
 L15 4 SEA FILE=HCAPLUS ABB=ON L14 AND BLEACH?
 L24 22 SEA FILE=HCAPLUS ABB=ON L14 NOT L15

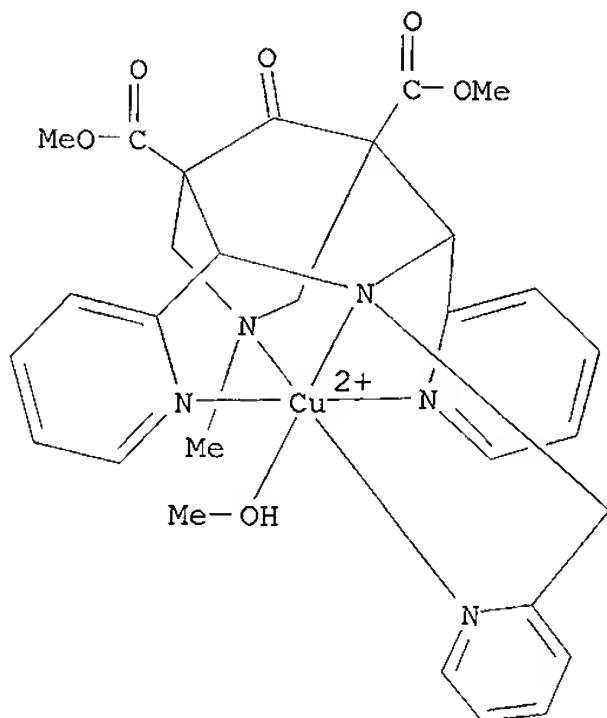
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 E1 THROUGH E143 ASSIGNED

=> D BIB ABS HITSTR 1-22

L24 ANSWER 1 OF 22 HCAPLUS COPYRIGHT 2003 ACS on STN
 AN 2003:405393 HCAPLUS
 DN 139:206563
 TI Catalytic aziridination of styrene with copper complexes of substituted
 3,7-diazabicyclo[3.3.1]nonanones
 AU Comba, Peter; Merz, Michael; Pritzkow, Hans
 CS Universitat Heidelberg, Anorganisch-Chemisches Institut, Im Neuenheimer
 Feld 270, Heidelberg, 69120, Germany
 SO European Journal of Inorganic Chemistry (2003), (9), 1711-1718
 CODEN: EJICFO; ISSN: 1434-1948
 PB Wiley-VCH Verlag GmbH & Co. KGaA
 DT Journal
 LA English
 AB The Cu(II) complexes of five bispidine-type ligands {3,7-
 diazabicyclo[3.3.1]nonanone; three tetradentate ligands with 2-pyridyl
 (L1), 6-methyl-2-pyridyl (L2) or 2-imidazolyl-3-Me (L3) substituents in
 2,4-positions; two pentadentate derivs. of L1 with an addnl.
 2-methylpyridine substituent at N3 (L4) or N7 (L5)} have, with one
 co-ligand (Cl-), a ligand-enforced square pyramidal (L1,2,3) or octahedral
 (L4,5) geometry. The main structural properties of three of the five
 [Cu(L)(Cl)]+ complexes (L1,2,3) are very similar, with Cu-N3 < Cu-N7 and
 Cu-Cl .apprxeq. 2.25 .ANG. (trans to N3); with L2 Cu-N3 .apprxeq. Cu-N7
 and Cu-Cl = 2.22 .ANG. (trans to N7); with L5 Cu-N3 < Cu-N7 and Cu-Cl =
 2.72 .ANG. (trans to N7). These structural patterns lead to considerable
 differences in ligand field and electrochem. properties (range of
 E.degree. of .apprx.500mV), and the reactivities of the Cu(II) complexes
 as aziridination catalysts (styrene, PhINTs, MeCN) are strikingly
 different. While the complex with L2 is very efficient, the activities of
 those with L1 and L3 are reduced to .apprx.50% and 30%, resp., and those
 with L4 and L5 are inactive. The fact that the max. TON (max. turnover
 no.) of CuIIL2 (19) is much smaller than the max. TON of CuIIL2 (47)
 suggests that in the active form the catalysts are in the CuI oxidn.
 state, and that the differences in redn. potentials are of major
 importance for catalysis. The result that CuL4,5 have no activity in the
 CuII state and only a small activity in the reduced form indicates that,
 apart from the redn. potentials, steric effects might also be of
 importance.
 IT 583024-96-8P 583024-98-0P 583025-02-9P
 583026-12-4P
 RL: CPS (Chemical process); PEP (Physical, engineering or chemical
 process); PNU (Preparation, unclassified); PRP (Properties); PREP
 (Preparation); PROC (Process)
 (formation and cyclic voltammetry of)
 RN 583024-96-8 HCAPLUS
 CN INDEX NAME NOT YET ASSIGNED

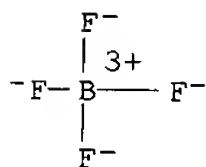
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CRN 583024-95-7
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CCI CCS



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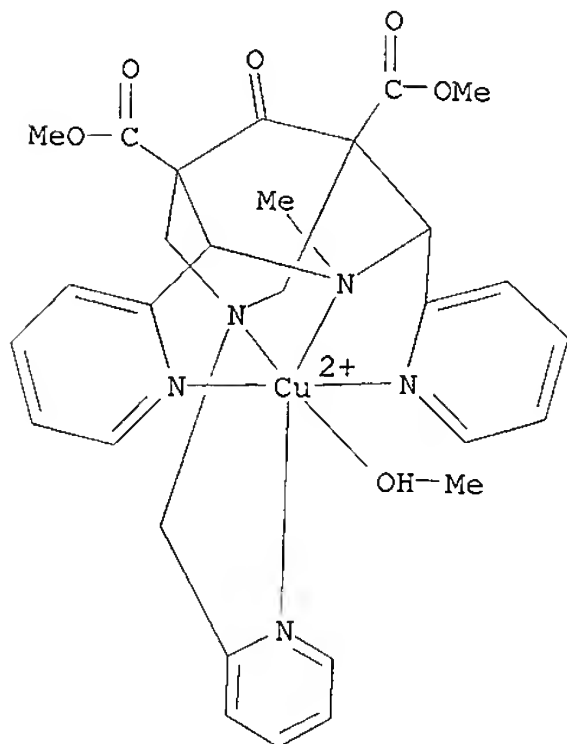
CRN 14874-70-5
CMF B F4
CCI CCS



RN 583024-98-0 HCAPLUS
CN INDEX NAME NOT YET ASSIGNED

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CRN 583024-97-9
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CCI CCS

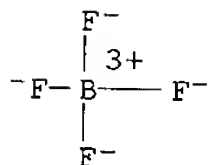


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CMF B F4

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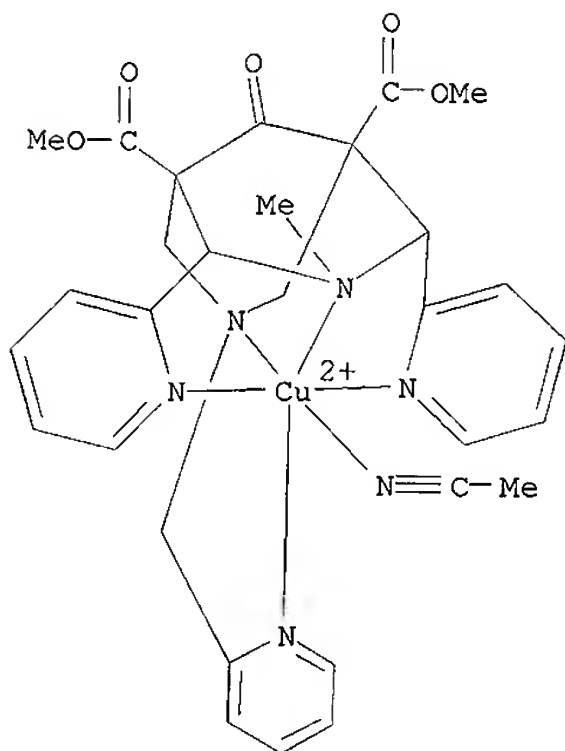
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CN INDEX NAME NOT YET ASSIGNED

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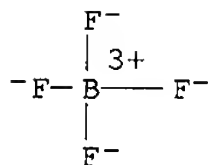


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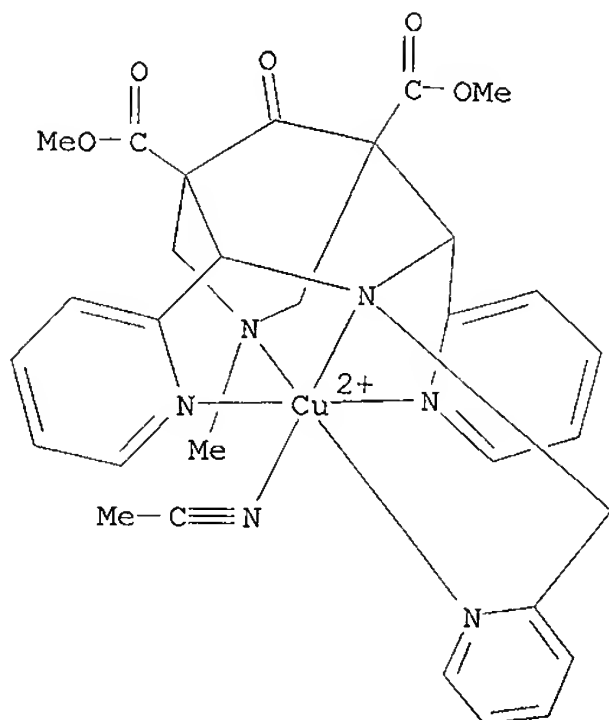
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RN 583026-12-4 HCAPLUS
CN INDEX NAME NOT YET ASSIGNED

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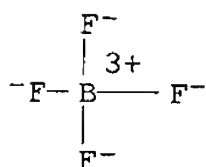


CM 2

CRN 14874-70-5

CMF B F4

CCI CCS



IT 583024-88-8P 583024-91-3P

RL: CAT (Catalyst use); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)

(prepn. and aziridination catalyst for styrene and cyclic voltammetry)

RN 583024-88-8 HCAPLUS

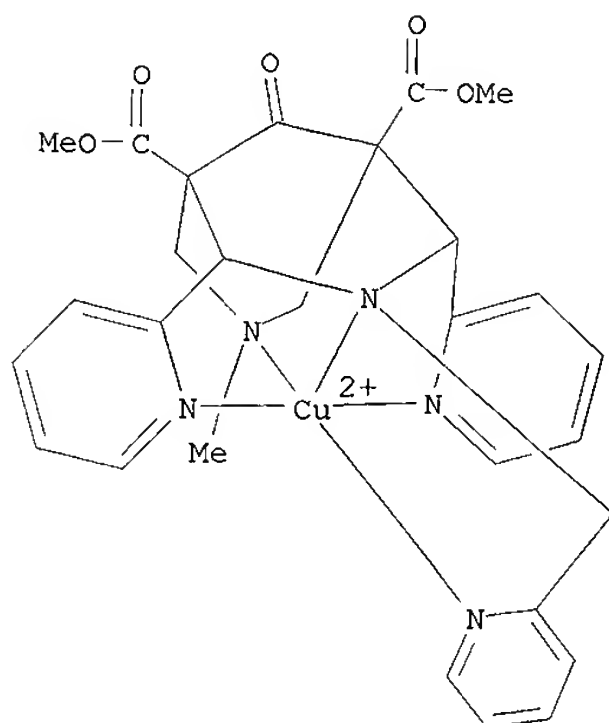
CN INDEX NAME NOT YET ASSIGNED

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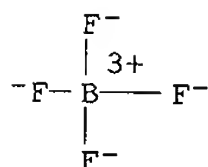


CM 2

CRN 14874-70-5

CMF B F4

CCI CCS



RN 583024-91-3 HCAPLUS

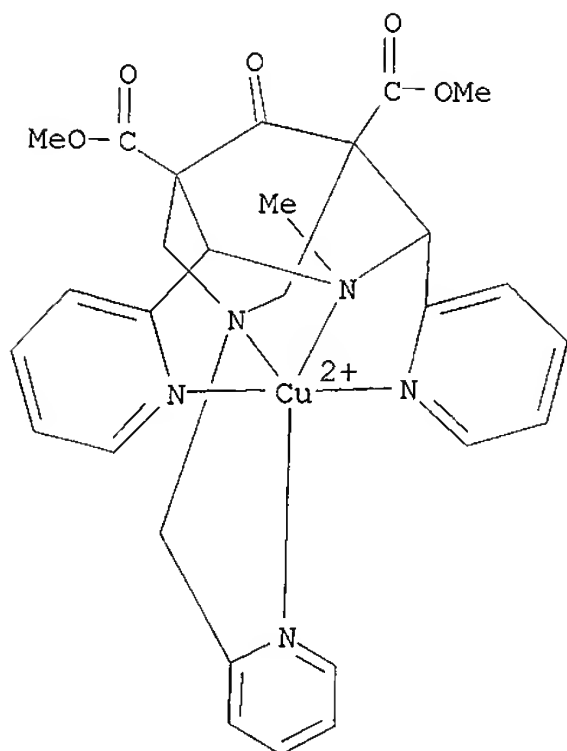
CN INDEX NAME NOT YET ASSIGNED

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CRN 583024-90-2

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CCI CCS

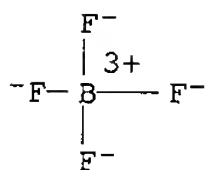


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CRN 14874-70-5

CMF B F4

CCI CCS



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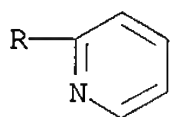
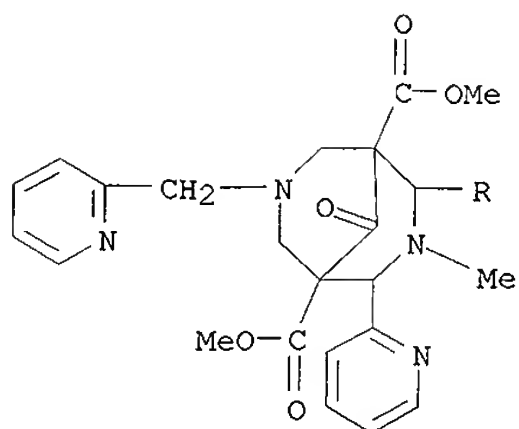
RL: RCT (Reactant); SPN (Synthetic preparation); PREP

(Preparation); RACT (Reactant or reagent)

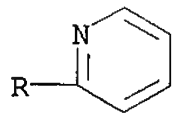
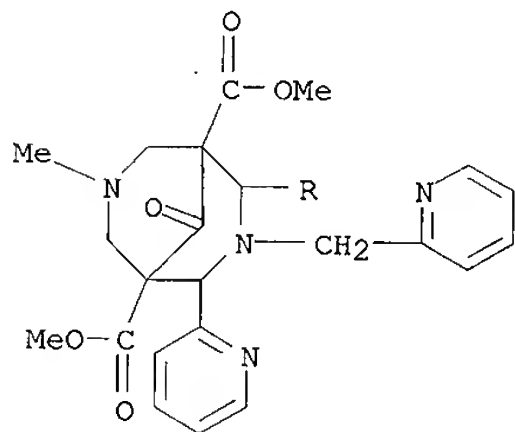
(prepn. and complexation with copper)

RN 437985-12-1 HCAPLUS

CN 3,7-Diazabicyclo[3.3.1]nonane-1,5-dicarboxylic acid, 3-methyl-9-oxo-2,4-di-
2-pyridinyl-7-(2-pyridinylmethyl)-, dimethyl ester (9CI) (CA INDEX NAME)



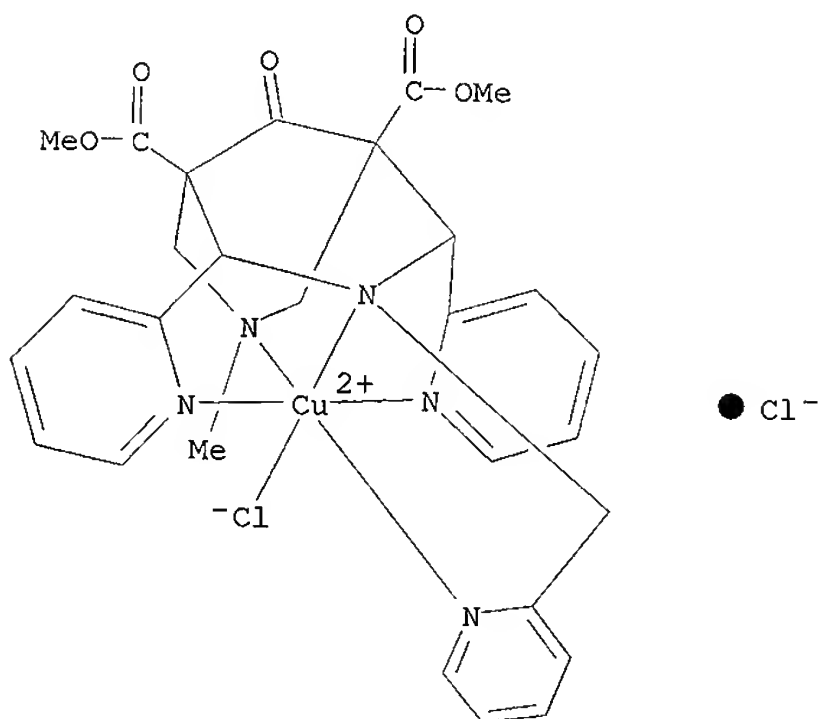
RN 437985-15-4 HCAPLUS
 CN 3,7-Diazabicyclo[3.3.1]nonane-1,5-dicarboxylic acid, 7-methyl-9-oxo-2,4-di-
 2-pyridinyl-3-(2-pyridinylmethyl)-, dimethyl ester (9CI) (CA INDEX NAME)



IT 583025-10-9P
 RL: CPS (Chemical process); PEP (Physical, engineering or chemical
 process); PRP (Properties); SPN (Synthetic preparation);
 PREP (Preparation); PROC (Process)
 (prepn. and crystal structure of)
 RN 583025-10-9 HCAPLUS
 CN INDEX NAME NOT YET ASSIGNED

CM 1

CRN 583024-86-6
CMF C28 H29 Cl Cu N5 O5 . Cl
CCI CCS

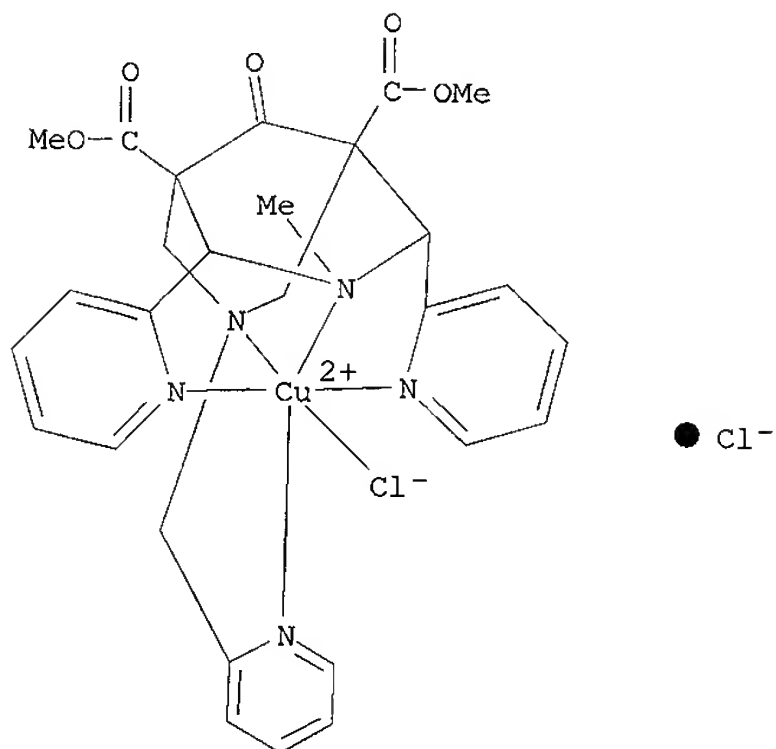


CM 2

CRN 75-05-8
CMF C2 H3 N

H₃C-C≡N

IT 583024-89-9p
RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); PRP (Properties); SPN (Synthetic preparation);
PREP (Preparation); PROC (Process)
(prepn. and crystal structure of and cyclic voltammetry)
RN 583024-89-9 HCAPLUS
CN INDEX NAME NOT YET ASSIGNED



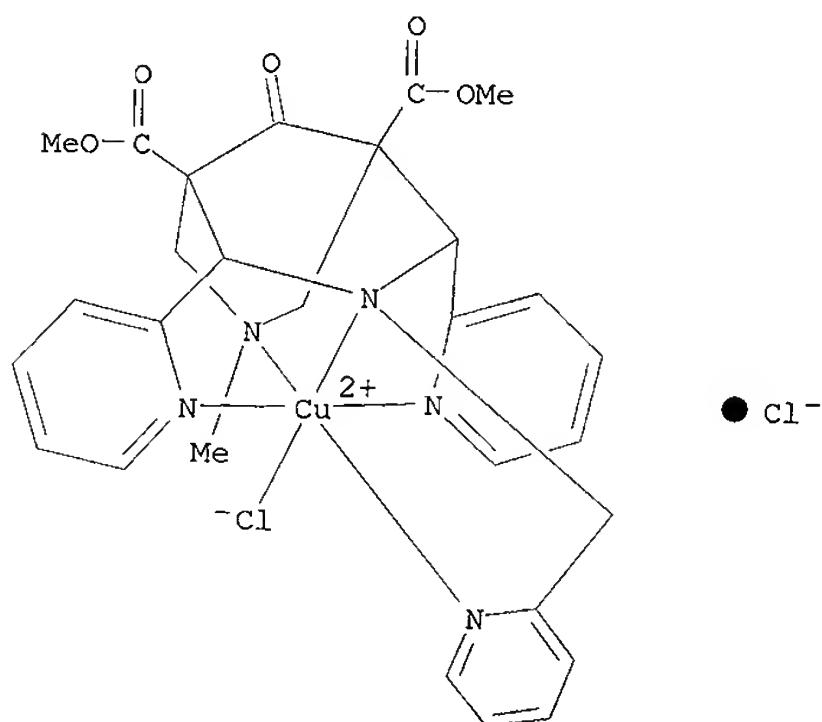
IT 583024-86-6P

RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); PRP (Properties); **SPN (Synthetic preparation);**

PREP (Preparation); PROC (Process)
(prepn. and cyclic voltammetry)

RN 583024-86-6 HCAPLUS

CN INDEX NAME NOT YET ASSIGNED



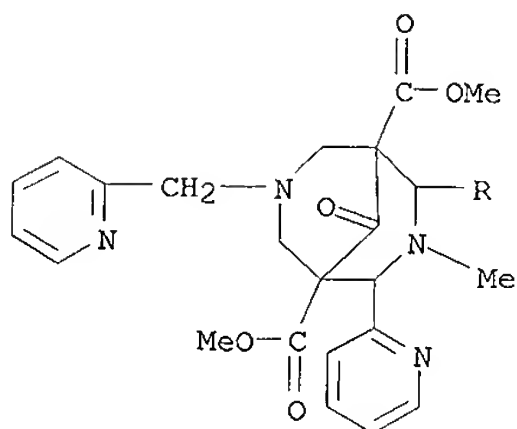
RE.CNT 34 THERE ARE 34 CITED REFERENCES AVAILABLE FOR THIS RECORD

KATHLEEN FULLER EIC 1700/PARKER LAW 308-4290

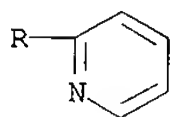
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L24 ANSWER 2 OF 22 HCAPLUS COPYRIGHT 2003 ACS on STN
AN 2002:813456 HCAPLUS
DN 138:82433
TI Iron coordination chemistry with tetra-, penta- and hexadentate
bispidine-type ligands
AU Borzel, Heidi; Comba, Peter; Hagen, Karl S.; Lampeka, Yaroslav D.; Lienke,
Achim; Linti, Gerald; Merz, Michael; Pritzkow, Hans; Tsybal, Lyudmyla V.
CS Anorganisch-Chemisches Institut, Universitat Heidelberg, Heidelberg,
D-69120, Germany
SO Inorganica Chimica Acta (2002), 337, 407-419
CODEN: ICHAA3; ISSN: 0020-1693
PB Elsevier Science B.V.
DT Journal
LA English
OS CASREACT 138:82433
AB Described is the synthesis of tetra-, penta- and hexadentate bispidine
ligands with two tertiary amine and two, three or four addnl. donors
(pyridine, phenolate or alcoholate; bispidine = 3,7-
diazabicyclo[3.3.1]nonanone, coordinating substituents at positions 2,4;
2,4,7; 2,3,4; 2,3,4,7) and of their hexacoordinate Fe(II) complexes.
Crystal structural analyses reveal that all complexes are six-coordinate,
with one or two co-ligands, and all structures with the tetradentate
bispidine ligand are asym. with respect to the two tertiary amine donors,
with short Fe-N1 and long Fe-N2 bonds (N1: position 3, N2: position 7).
This is the same structural type as found for the Jahn-Teller labile
Cu(II) compds., the Mn(II) and Cr(III) complexes but different from Cu(I),
Zn(II) and some Co(II) complexes with M-N1 .gtoreq. M-N2. Addnl. donors
at N2 modify the structures, but do not lead to a change to the other
structural type; addnl. donors at N1 lead to structures with M-N1 approx.
M-N2. Soln. studies (NMR, UV-visible, electrochem., magnetism) indicate
that the co-ligands may be substituted by solvent, with the donors trans
to N2 being more labile than those trans to N1, but the over-all
structural properties in soln. are similar to those in the solid state.
The complexes are stable towards oxidn., all except one have high spin
electronic configuration. The oxidn. potentials strongly depend on the
two co-ligands.
IT 437985-12-1P 437985-15-4P 437985-19-8P
479671-33-5P 479671-34-6P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP
(Preparation); RACT (Reactant or reagent)
(prepn. and complexation with copper)
RN 437985-12-1 HCAPLUS
CN 3,7-Diazabicyclo[3.3.1]nonane-1,5-dicarboxylic acid, 3-methyl-9-oxo-2,4-di-
2-pyridinyl-7-(2-pyridinylmethyl)-, dimethyl ester (9CI) (CA INDEX NAME)

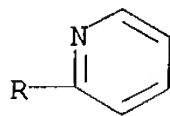
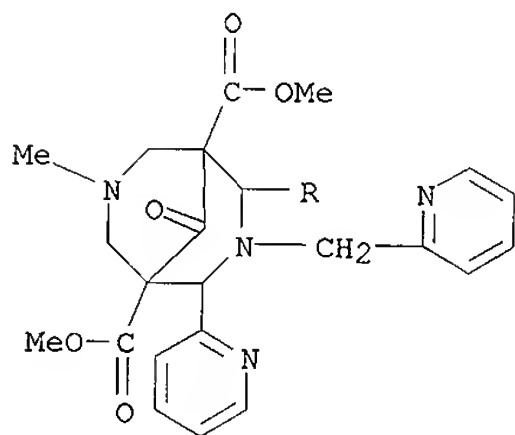
* Priority



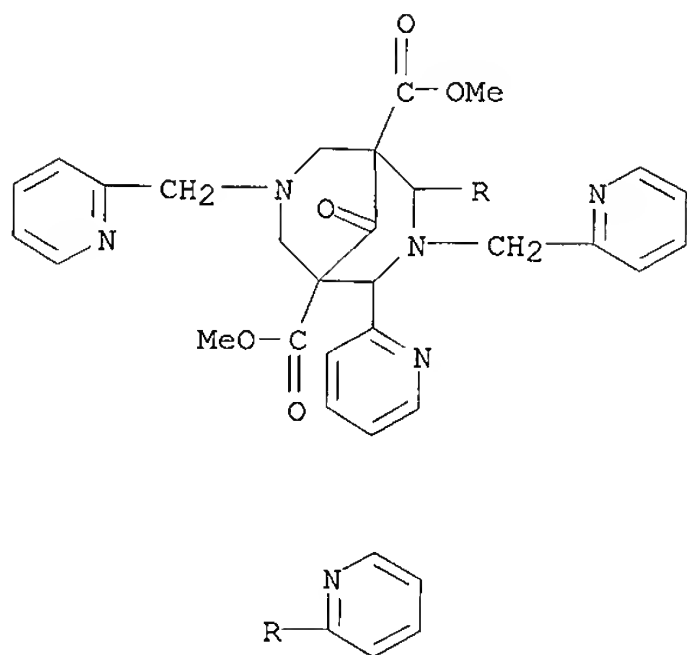
claims 19



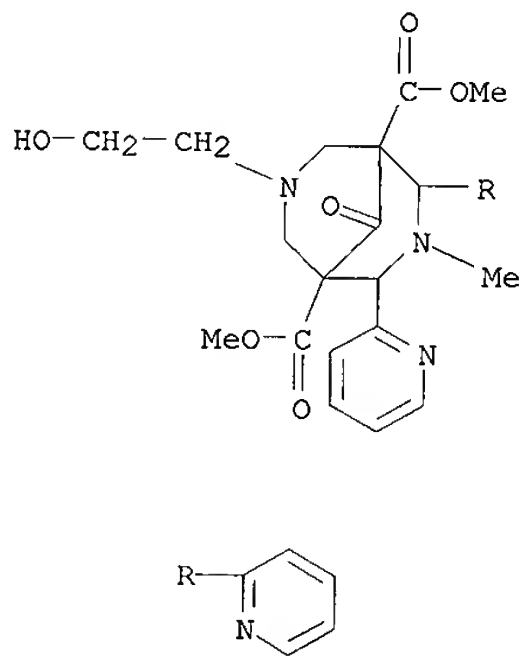
RN 437985-15-4 HCAPLUS
 CN 3,7-Diazabicyclo[3.3.1]nonane-1,5-dicarboxylic acid, 7-methyl-9-oxo-2,4-di-
 2-pyridinyl-3-(2-pyridinylmethyl)-, dimethyl ester (9CI) (CA INDEX NAME)



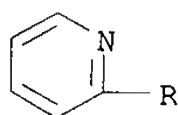
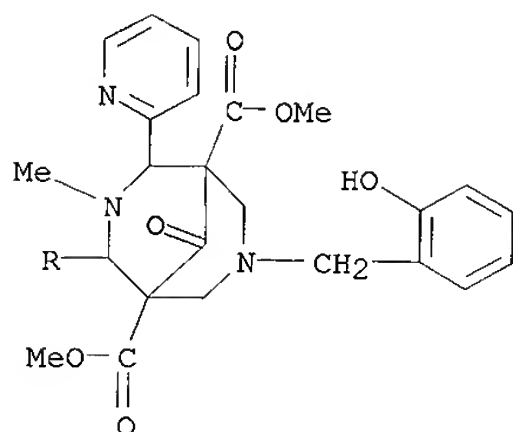
RN 437985-19-8 HCAPLUS
 CN 3,7-Diazabicyclo[3.3.1]nonane-1,5-dicarboxylic acid, 9-oxo-2,4-di-2-
 pyridinyl-3,7-bis(2-pyridinylmethyl)-, dimethyl ester (9CI) (CA INDEX
 NAME)



RN 479671-33-5 HCAPLUS
 CN 3,7-Diazabicyclo[3.3.1]nonane-1,5-dicarboxylic acid, 7-(2-hydroxyethyl)-3-methyl-9-oxo-2,4-di-2-pyridinyl-, dimethyl ester (9CI) (CA INDEX NAME)



RN 479671-34-6 HCAPLUS
 CN 3,7-Diazabicyclo[3.3.1]nonane-1,5-dicarboxylic acid, 7-[(2-hydroxyphenyl)methyl]-3-methyl-9-oxo-2,4-di-2-pyridinyl-, dimethyl ester (9CI) (CA INDEX NAME)



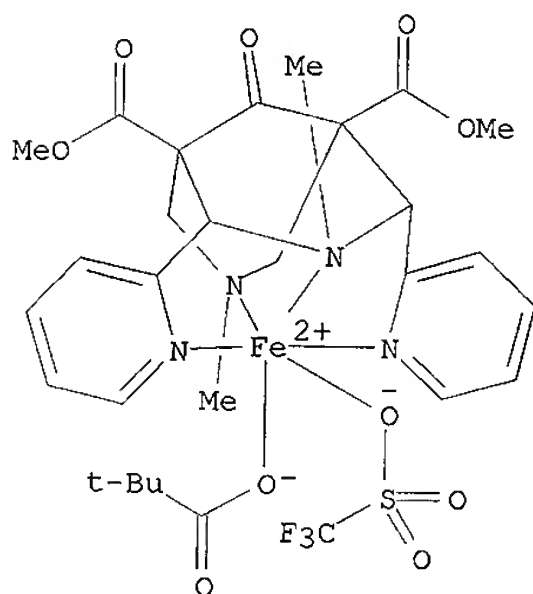
IT 479671-27-7P

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)

(prepn. and crystal structure)

RN 479671-27-7 HCAPLUS

CN Iron, [rel-dimethyl (1R,2S,4R,5S)-3,7-dimethyl-9-oxo-2,4-di(2-pyridinyl-.kappa.N)-3,7-diazabicyclo[3.3.1]nonane-1,5-dicarboxylate-.kappa.N3,.kappa.N7] (2,2-dimethylpropanoate-.kappa.O) (trifluoromethanesulfonate-.kappa.O)-, (OC-6-65)- (9CI) (CA INDEX NAME)



IT 437985-22-3P 479671-37-9P 479671-39-1P

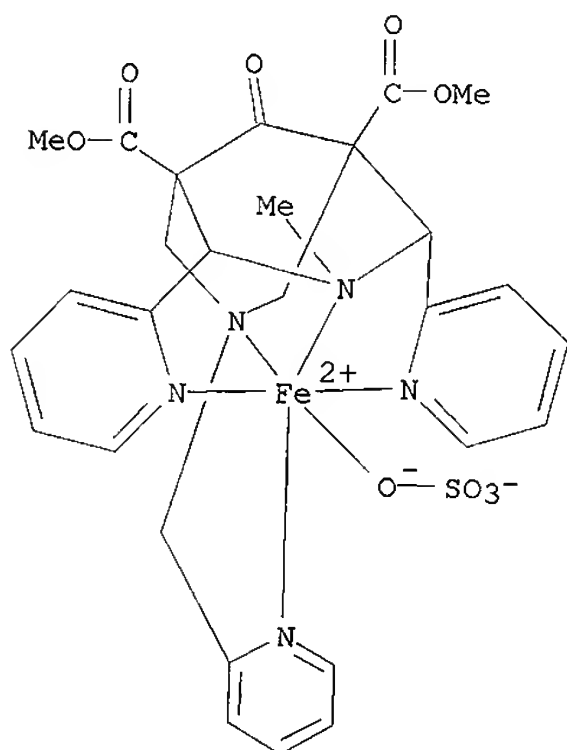
480435-08-3P 480435-09-4P 480435-10-7P

480435-36-7P 480436-82-6P

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)

(prepn. and crystal structure of)

RN 437985-22-3 HCAPLUS
 CN Iron, [rel-(1R,2S,4R,5S)-dimethyl 3-methyl-9-oxo-2,4-di(2-pyridinyl-.kappa.N)-7-[(2-pyridinyl-.kappa.N)methyl]-3,7-diazabicyclo[3.3.1]nonane-1,5-dicarboxylate-.kappa.N3,.kappa.N7][sulfato(2-)-.kappa.O]-, (OC-6-63)-(9CI) (CA INDEX NAME)



RN 479671-37-9 HCAPLUS
 CN Iron(3+), triaqua[.mu.-[rel-tetramethyl (1R,1'R,2S,2'S,4R,4'R,5S,5'S)-3,3'-(1,3-propanediyl)bis[7-methyl-9-oxo-2,4-di(2-pyridinyl-.kappa.N)-3,7-diazabicyclo[3.3.1]nonane-1,5-dicarboxylate-.kappa.N3,.kappa.N7]]](trifluoromethanesulfonato-.kappa.O)di-, stereoisomer, salt with trifluoromethanesulfonic acid (1:3) (9CI) (CA INDEX NAME)

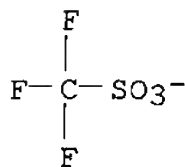
CM 1

CRN 479671-36-8
 CMF C48 H58 F3 Fe2 N8 O16 S
 CCI CCS

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

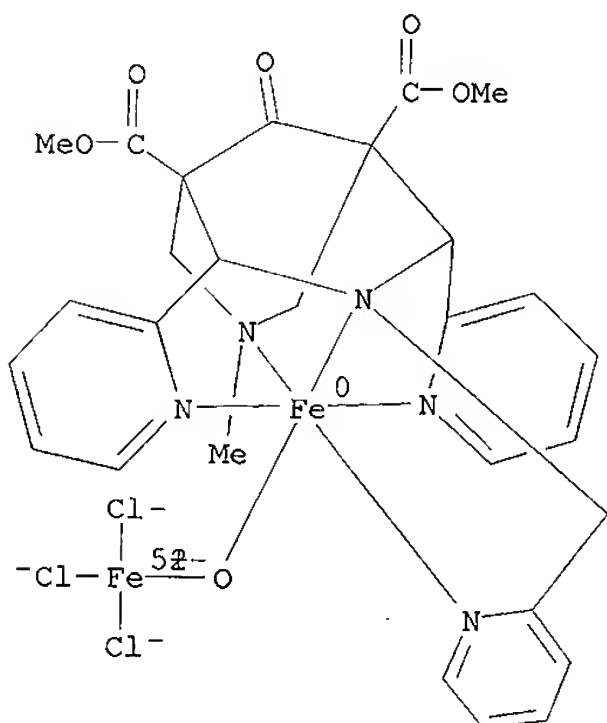
CRN 37181-39-8
 CMF C F3 O3 S



RN 479671-39-1 HCAPLUS
 CN Iron, trichloro[dimethyl 7-methyl-9-oxo-2,4-di(2-pyridinyl-.kappa.N)-3-[(2-pyridinyl-.kappa.N)methyl]-3,7-diazabicyclo[3.3.1]nonane-1,5-dicarboxylate-.kappa.N3,.kappa.N7]-.mu.-oxodi-, compd. with acetamide (1:1) (9CI) (CA INDEX NAME)

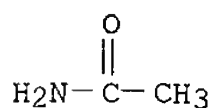
CM 1

CRN 479671-38-0
 CMF C28 H29 Cl3 Fe2 N5 O6
 CCI CCS



CM 2

CRN 60-35-5
 CMF C2 H5 N O

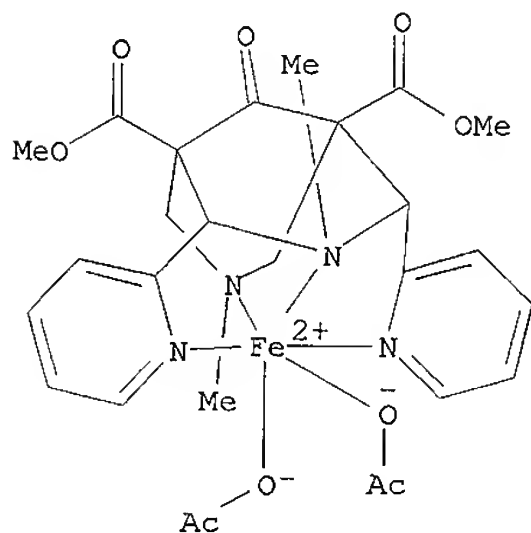


RN 480435-08-3 HCAPLUS
 CN Iron, bis(acetato-.kappa.O)[rel-dimethyl (1R,2S,4R,5S)-3,7-dimethyl-9-oxo-2,4-di(2-pyridinyl-.kappa.N)-3,7-diazabicyclo[3.3.1]nonane-1,5-dicarboxylate-.kappa.N3,.kappa.N7]-, (OC-6-54)-, compd. with methanol (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 479671-28-8

CMF C27 H32 Fe N4 O9
CCI CCS



CM 2

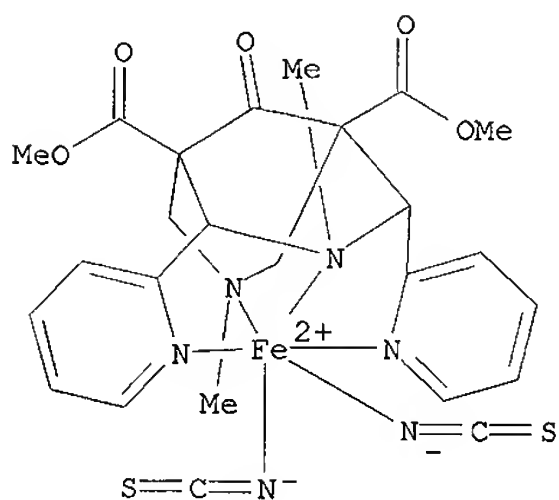
CRN 67-56-1
CMF C H4 O

H₃C-OH

RN 480435-09-4 HCAPLUS
CN Iron, [rel-dimethyl (1R,2S,4R,5S)-3,7-dimethyl-9-oxo-2,4-di(2-pyridinyl-
.kappa.N)-3,7-diazabicyclo[3.3.1]nonane-1,5-dicarboxylate-
.kappa.N3,.kappa.N7]bis(thiocyanato-.kappa.N)-, (OC-6-15)-, compd. with
acetonitrile (1:2) (9CI) (CA INDEX NAME)

CM 1

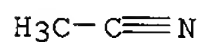
CRN 479671-26-6
CMF C25 H26 Fe N6 O5 S2
CCI CCS



CM 2

CRN 75-05-8

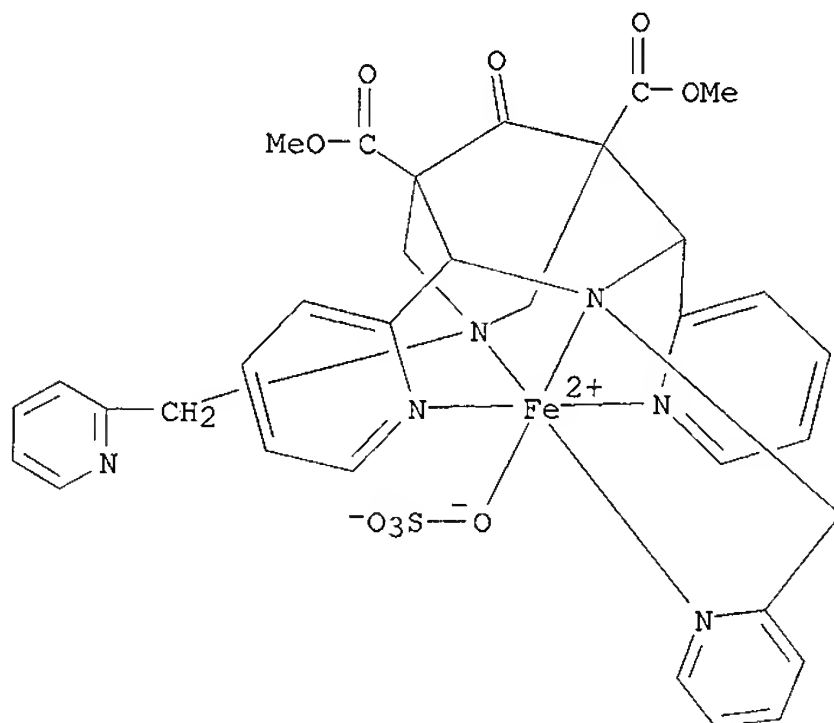
CMF C2 H3 N



RN 480435-10-7 HCAPLUS

CN Iron, [rel-dimethyl (1R,2S,4R,5S)-9-oxo-2,4-di(2-pyridinyl-.kappa.N)-3,7-bis[(2-pyridinyl-.kappa.N)methyl]-3,7-diazabicyclo[3.3.1]nonane-1,5-dicarboxylate-.kappa.N3,.kappa.N7][sulfato(2-)-.kappa.O]-, monohydrate, (OC-6-53)- (9CI) (CA INDEX NAME)

PAGE 1-A

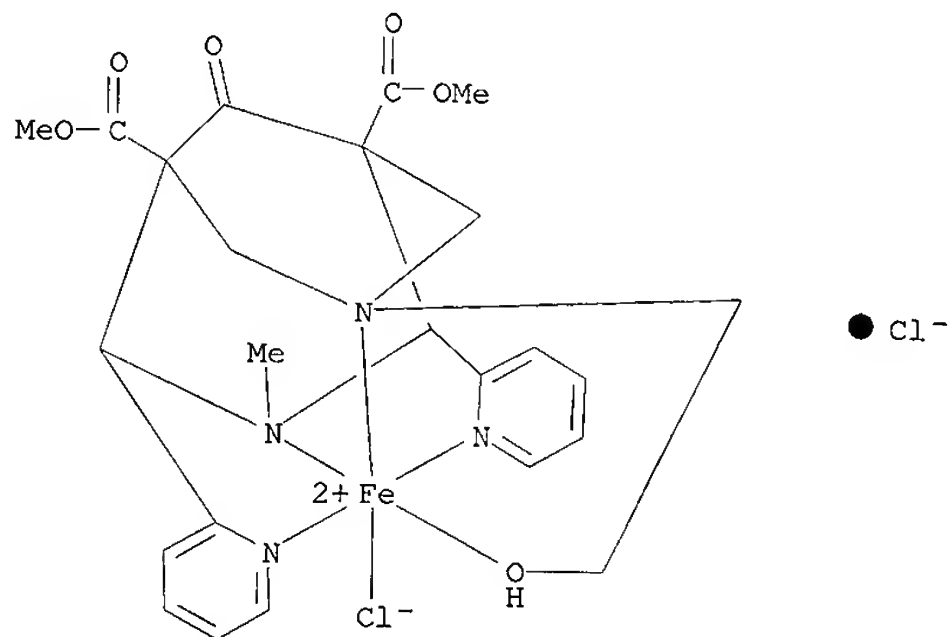


PAGE 2-A

H₂O

RN 480435-36-7 HCAPLUS
 CN Iron(1+), chloro[rel-dimethyl (1R,2S,4R,5S)-7-[2-(hydroxy-.kappa.O)ethyl]-3-methyl-9-oxo-2,4-di(2-pyridinyl-.kappa.N)-3,7-diazabicyclo[3.3.1]nonane-1,5-dicarboxylate-.kappa.N3,.kappa.N7]-, chloride, trihydrate, (OC-6-65)-(9CI) (CA INDEX NAME)

PAGE 1-A



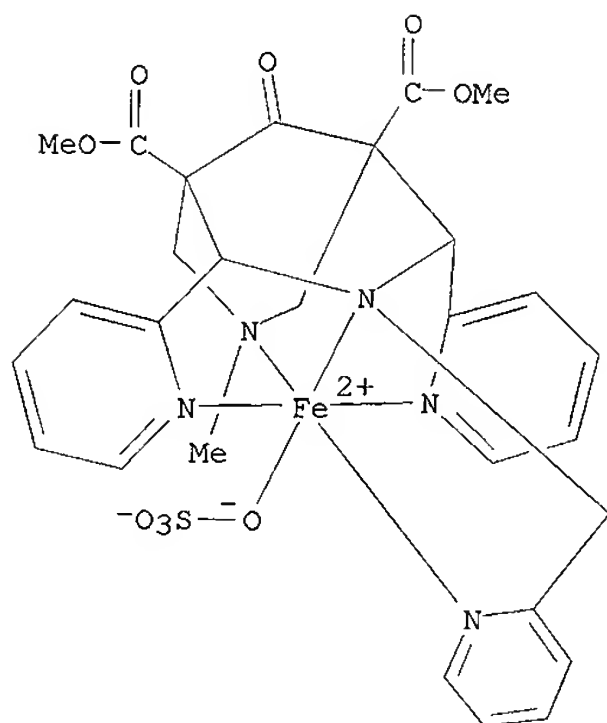
PAGE 2-A

● 3 H₂O

RN 480436-82-6 HCAPLUS
 CN Iron, [rel-dimethyl (1R,2S,4R,5S)-7-methyl-9-oxo-2,4-di(2-pyridinyl-.kappa.N)-3-[(2-pyridinyl-.kappa.N)methyl]-3,7-diazabicyclo[3.3.1]nonane-1,5-dicarboxylate-.kappa.N3,.kappa.N7][sulfato(2-)-.kappa.O]-, (OC-6-53)-, compd. with methanol (1:2), monohydrate (9CI) (CA INDEX NAME)

CM 1

CRN 439153-63-6
 CMF C28 H29 Fe N5 O9 S
 CCI CCS



CM 2

CRN 67-56-1

CMF C H4 O

H₃C-OH

IT 439153-63-6P 479671-29-9P 479671-32-4P

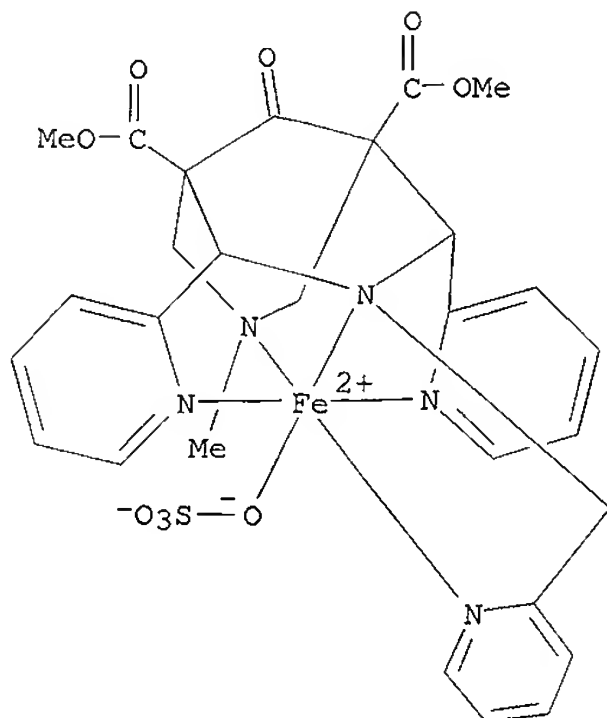
480436-81-5P

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)

(prepn. and oxidn. potential)

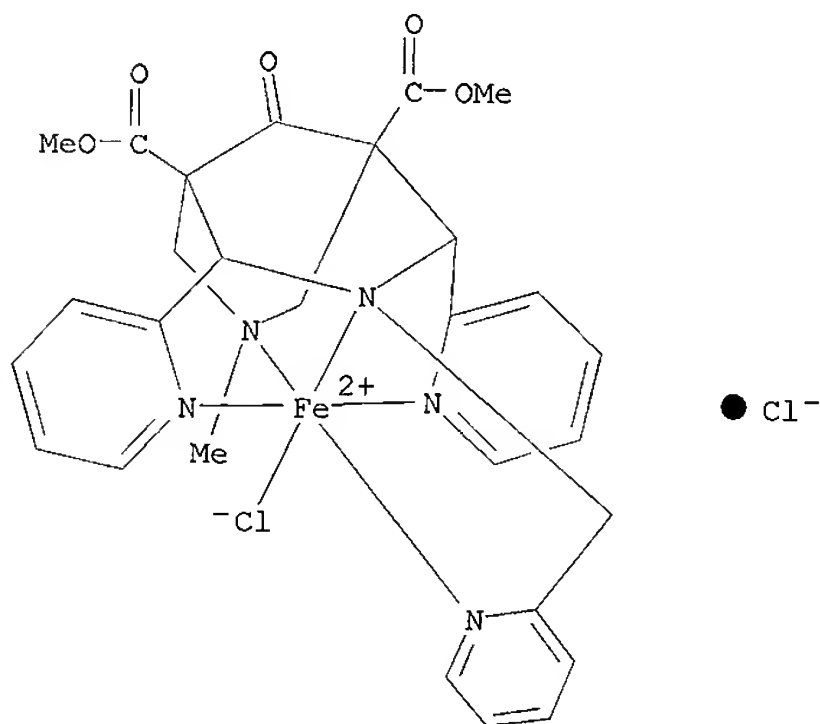
RN 439153-63-6 HCAPLUS

CN Iron, [rel-dimethyl (1R,2S,4R,5S)-7-methyl-9-oxo-2,4-di(2-pyridinyl-.kappa.N)-3-[(2-pyridinyl-.kappa.N)methyl]-3,7-diazabicyclo[3.3.1]nonane-1,5-dicarboxylate-.kappa.N3,.kappa.N7][sulfato(2-)-.kappa.O]-, (OC-6-53)-(9CI) (CA INDEX NAME)



RN 479671-29-9 HCAPLUS

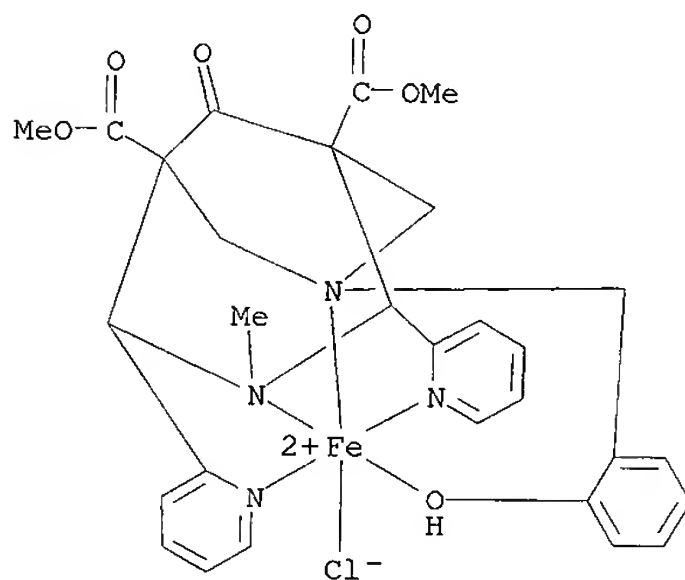
CN Iron(1+), chloro[rel-dimethyl (1R,2S,4R,5S)-7-methyl-9-oxo-2,4-di(2-pyridinyl-.kappa.N)-3-[(2-pyridinyl-.kappa.N)methyl]-3,7-diazabicyclo[3.3.1]nonane-1,5-dicarboxylate-.kappa.N3,.kappa.N7]-, chloride, (OC-6-53)- (9CI) (CA INDEX NAME)



RN 479671-32-4 HCAPLUS

CN Iron(1+), chloro[rel-dimethyl (1R,2S,4R,5S)-7-[[2-(hydroxy-.kappa.O)phenyl]methyl]-3-methyl-9-oxo-2,4-di(2-pyridinyl-.kappa.N)-3,7-diazabicyclo[3.3.1]nonane-1,5-dicarboxylate-.kappa.N3,.kappa.N7]-,

chloride, (OC-6-65)- (9CI) (CA INDEX NAME)



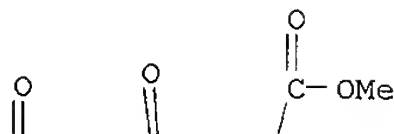
● Cl⁻

RN 480436-81-5 HCAPLUS
 CN Iron(2+), [rel-dimethyl (1R,2S,4R,5S)-9-oxo-2,4-di(2-pyridinyl-.kappa.N)-3,7-bis[(2-pyridinyl-.kappa.N)methyl]-3,7-diazabicyclo[3.3.1]nonane-1,5-dicarboxylate-.kappa.N3,.kappa.N7]-, (OC-6-26)-, diperchlorate (9CI) (CA INDEX NAME)

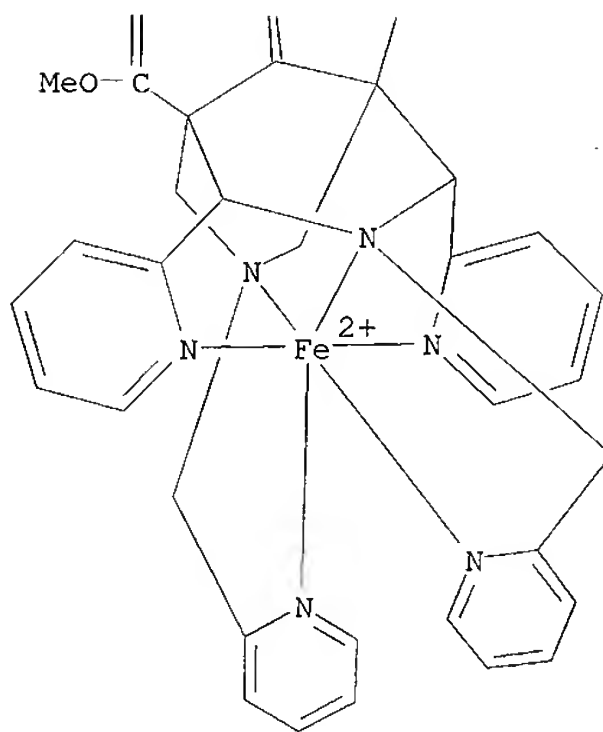
CM 1

CRN 480436-80-4
 CMF C33 H32 Fe N6 O5
 CCI CCS

PAGE 1-A



PAGE 2-A



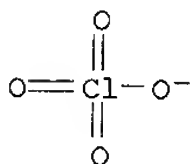
CM 2

CRN 14797-73-0

KATHLEEN FULLER EIC 1700/PARKER LAW 308-4290

CMF Cl O4

*Claim 20
Priority see previous page*



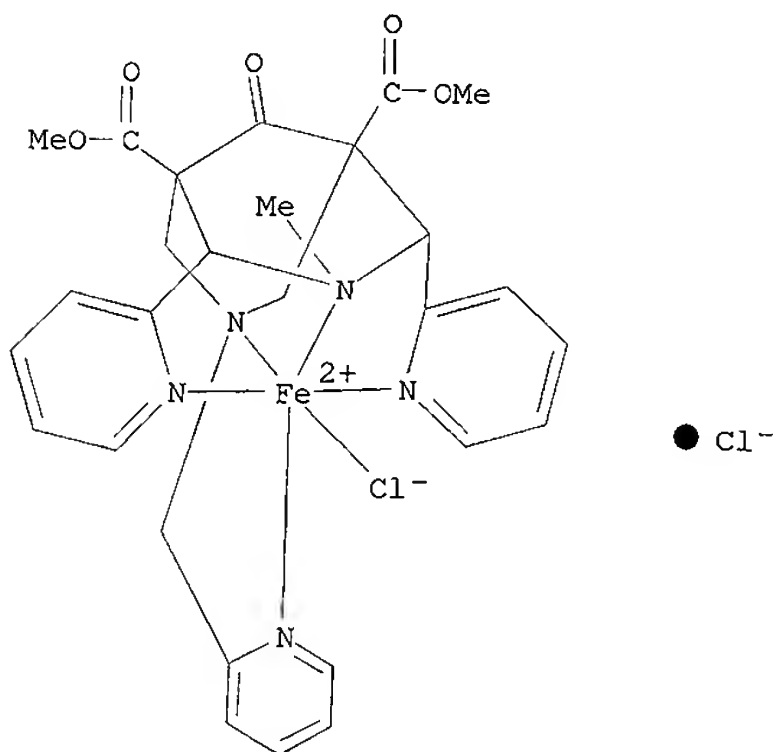
IT 437985-26-7P

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)

(prepn. and oxidn. potential and crystal structure)

RN 437985-26-7 HCAPLUS

CN Iron(1+), chloro[rel-(1R,2S,4R,5S)-dimethyl 3-methyl-9-oxo-2,4-di(2-pyridinyl-.kappa.N)-7-[(2-pyridinyl-.kappa.N)methyl]-3,7-diazabicyclo[3.3.1]nonane-1,5-dicarboxylate-.kappa.N3,.kappa.N7]-, chloride, (OC-6-63)-(9CI) (CA INDEX NAME)



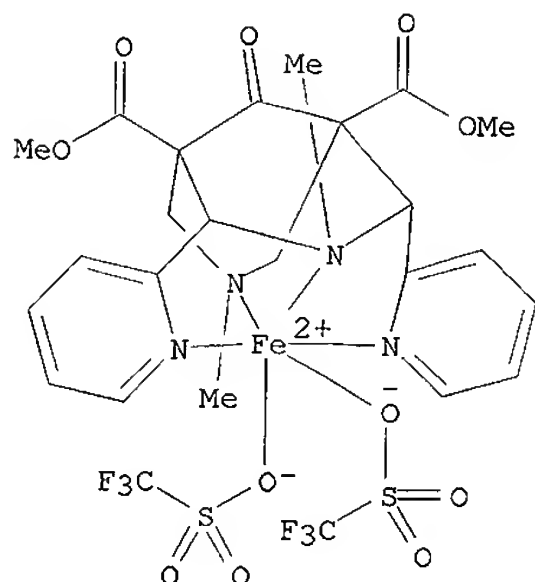
IT 437985-33-6P 479671-25-5P 479671-26-6P

479671-28-8P 479671-30-2P 479671-31-3P

RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)

RN 437985-33-6 HCAPLUS

CN Iron, [rel-(1R,2S,4R,5S)-dimethyl 3,7-dimethyl-9-oxo-2,4-di(2-pyridinyl-.kappa.N)-3,7-diazabicyclo[3.3.1]nonane-1,5-dicarboxylate-.kappa.N3,.kappa.N7]bis(trifluoromethanesulfonato-.kappa.O)-, (OC-6-54)-(9CI) (CA INDEX NAME)



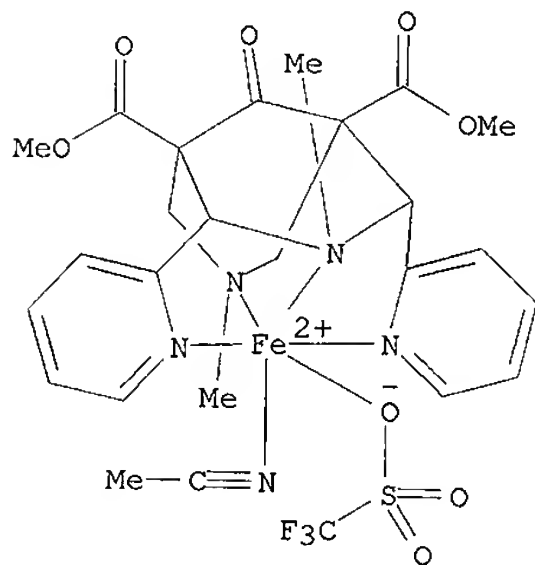
RN 479671-25-5 HCAPLUS
 CN Iron(1+), (acetonitrile)[dimethyl 3,7-dimethyl-9-oxo-2,4-di(2-pyridinyl-
 .kappa.N)-3,7-diazabicyclo[3.3.1]nonane-1,5-dicarboxylate-
 .kappa.N3,.kappa.N7](trifluoromethanesulfonato-.kappa.O)-, salt with
 trifluoromethanesulfonic acid (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 479671-24-4

CMF C26 H29 F3 Fe N5 O8 S

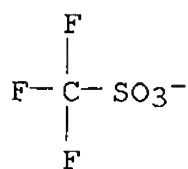
CCI CCS



CM 2

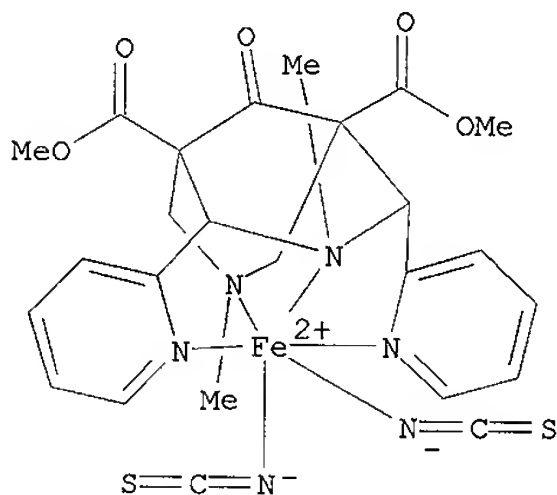
CRN 37181-39-8

CMF C F3 O3 S



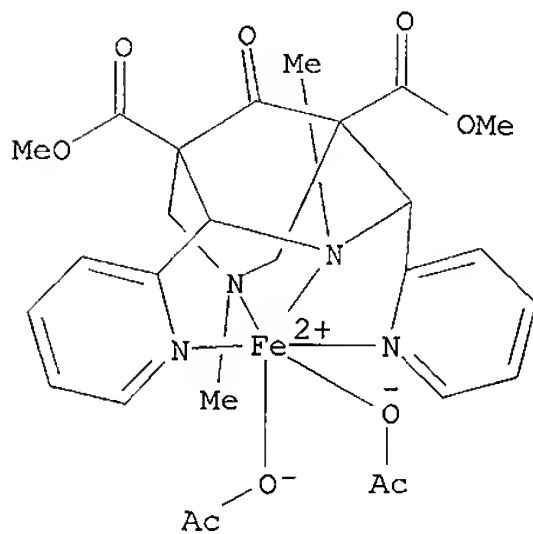
RN 479671-26-6 HCAPLUS

CN Iron, [rel-dimethyl (1R,2S,4R,5S)-3,7-dimethyl-9-oxo-2,4-di(2-pyridinyl-.kappa.N)-3,7-diazabicyclo[3.3.1]nonane-1,5-dicarboxylate-.kappa.N3,.kappa.N7]bis(thiocyanato-.kappa.N)-, (OC-6-15)- (9CI) (CA INDEX NAME)



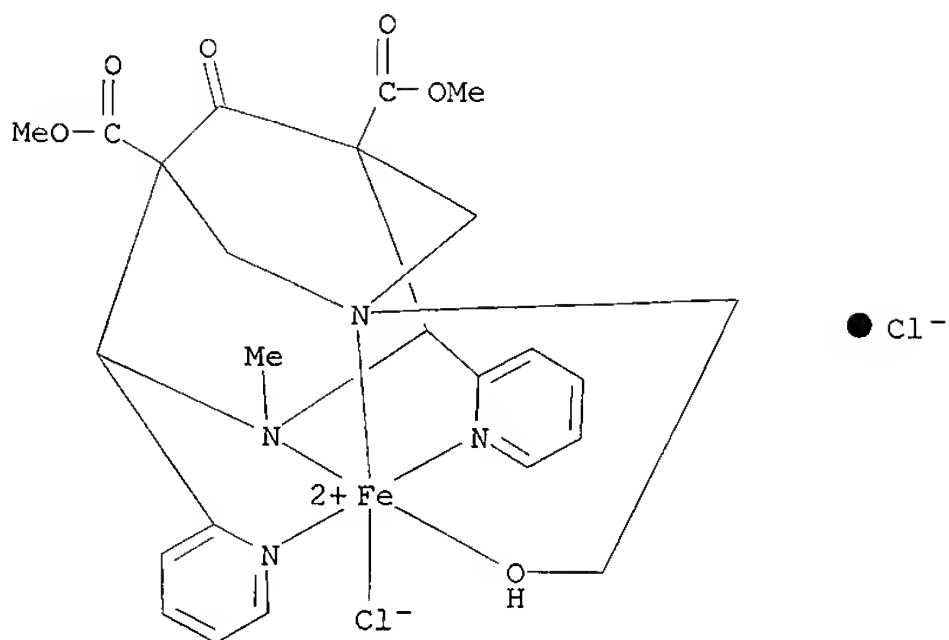
RN 479671-28-8 HCAPLUS

CN Iron, bis(acetato-.kappa.O)[rel-dimethyl (1R,2S,4R,5S)-3,7-dimethyl-9-oxo-2,4-di(2-pyridinyl-.kappa.N)-3,7-diazabicyclo[3.3.1]nonane-1,5-dicarboxylate-.kappa.N3,.kappa.N7]-, (OC-6-54)- (9CI) (CA INDEX NAME)



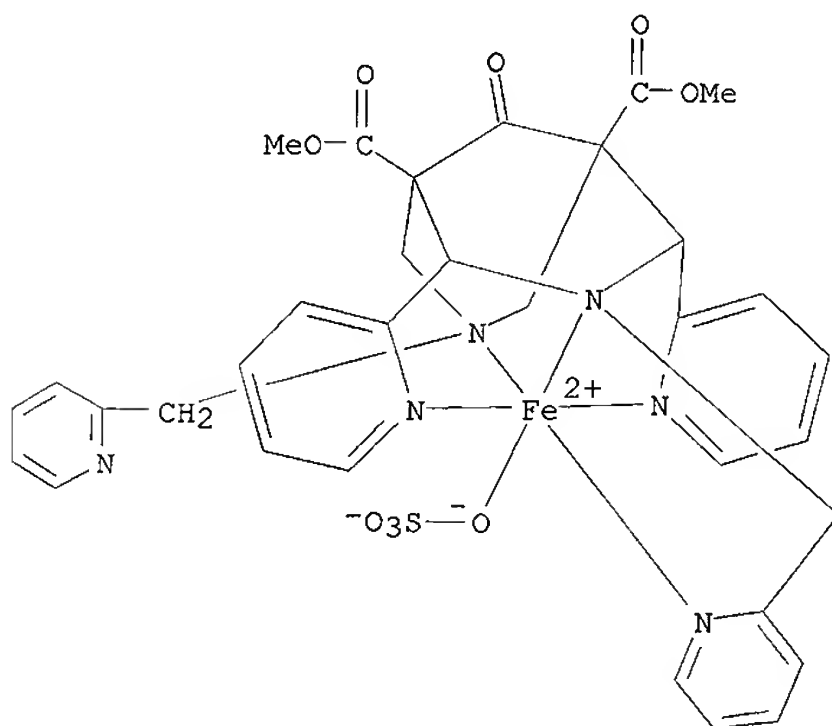
RN 479671-30-2 HCAPLUS

CN Iron(1+), chloro[rel-dimethyl (1R,2S,4R,5S)-7-[2-(hydroxy-.kappa.O)ethyl]-3-methyl-9-oxo-2,4-di(2-pyridinyl-.kappa.N)-3,7-diazabicyclo[3.3.1]nonane-1,5-dicarboxylate-.kappa.N3,.kappa.N7]-, chloride, (OC-6-65)- (9CI) (CA INDEX NAME)



RN 479671-31-3 HCAPLUS

CN Iron, [rel-dimethyl (1R,2S,4R,5S)-9-oxo-2,4-di(2-pyridinyl-.kappa.N)-3,7-bis[(2-pyridinyl-.kappa.N)methyl]-3,7-diazabicyclo[3.3.1]nonane-1,5-dicarboxylate-.kappa.N3,.kappa.N7][sulfato(2-)-.kappa.O]-, (OC-6-53)-(9CI) (CA INDEX NAME)

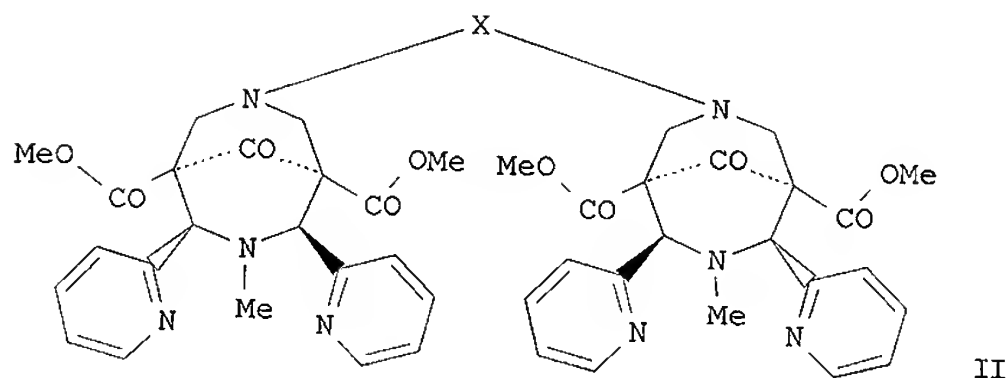
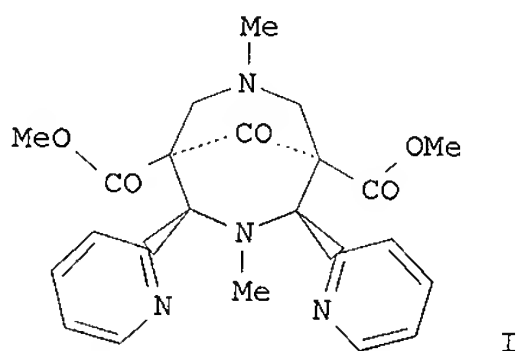


RE.CNT 28 THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L24 ANSWER 3 OF 22 HCAPLUS COPYRIGHT 2003 ACS on STN
AN 2002:729681 HCAPLUS
DN 137:392544

X Priority

TI Copper-Bispidine Coordination Chemistry: Syntheses, Structures, Solution Properties, and Oxygenation Reactivity
 AU Boerzel, Heidi; Comba, Peter; Hagen, Karl S.; Kerscher, Marion; Pritzkow, Hans; Schatz, Markus; Schindler, Siegfried; Walter, Olaf
 CS Anorganisch-Chemisches Institut, Universitaet Heidelberg, Heidelberg, D-69120, Germany
 SO Inorganic Chemistry (2002), 41(21), 5440-5452
 CODEN: INOCAJ; ISSN: 0020-1669
 PB American Chemical Society
 DT Journal
 LA English
 GI



AB Cu(I) and Cu(II) complexes of two mononucleating (I) and four dinucleating tetradentate (II, X = C₂H₄, C₃H₆, m-xylyl) ligands with a bispidine backbone (R = 2,4-(2-pyridyl or 4-methyl-2-pyridyl) 3,7-diazabicyclo[3.3.1]nonanone) were prep'd. and analyzed structurally, spectroscopically, and electrochem. The structures of the Cu chromophores are square pyramidal, except for two Cu(I) compds. which are four-coordinate with one noncoordinated pyridine. The other Cu(I) structures have the two pyridine donors, the co-ligand (NCCH₃), and one of the tertiary amines (N3) in-plane with the Cu center and the other amine (N7) coordinated axially (Cu-N3 > Cu-N7, .apprx.2.25 .ANG. vs. 2.20 .ANG.). The Cu(II) compds. with pyridine donors have a similar structure, but the axial amine has a weaker bond to the Cu(II) center (Cu-N3 < Cu-N7, .apprx.2.03 .ANG. vs. 2.30 .ANG.). The structures with methylated pyridine donors are also square pyramidal with the co-ligands (Cl- or NCCH₃) in-plane. With NCCH₃ the same structural type as for the other

Cu(II) complexes is obsd., and with the bulkier Cl- the co-ligand is trans to N7, leading to a square pyramidal structure with the pyridine donors rotated out of the basal plane and only a small difference between axial and in-plane amines (2.15, 2.12 .ANG.). These structural differences, enforced by the rigid bispidine backbone, lead to large variations in spectroscopic and electrochem. properties and reactivities. Oxygenation of the Cu(I) complexes with pyridine-substituted bispidine ligands leads to relatively stable .mu.-peroxo-dicopper(II) complexes. with a preorganization of the dicopper chromophores, by linking the two donor sets. With a preorganization of the dicopper chromophores, by linking the two donor sets, these peroxo compds. are stable at room temp. for up to 1 h. The stabilization of the peroxo complexes is to a large extent attributed to the square pyramidal coordination geometry with the substrate bound in the basal plane, a structural motif enforced by the rigid bispidine backbone. The stabilities and structural properties also correlate with the spectroscopic (UV-visible and Raman) and electrochem. properties.

IT 232945-72-1P 233604-20-1P 264910-16-9P
264910-18-1P 264910-45-4P 475980-03-1P
475980-04-2P 475980-05-3P 475980-06-4P
475980-11-1P 475980-12-2P 475980-14-4P
475980-34-8P 476157-15-0P

RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn.)

RN 232945-72-1 HCAPLUS

CN Copper(2+), bis(acetonitrile)[.mu.-[rel-tetramethyl
(1R,1'R,5S,5'S,6R,6'R,8S,8'S)-3,3'-(1,2-ethanediyl)bis[7-methyl-9-oxo-6,8-
di(2-pyridinyl-.kappa.N)-3,7-diazabicyclo[3.3.1]nonane-1,5-dicarboxylate-
.kappa.N3,.kappa.N7]]]di-, stereoisomer, salt with
trifluoromethanesulfonic acid (1:2) (9CI) (CA INDEX NAME)

CM 1

CRN 232945-71-0

CMF C50 H56 Cu2 N10 O10

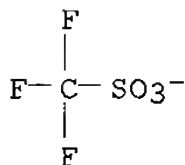
CCI CCS

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 37181-39-8

CMF C F3 O3 S



RN 233604-20-1 HCAPLUS

CN Copper(2+), bis(acetonitrile)[.mu.-[rel-tetramethyl
(1R,1'R,5S,5'S,6R,6'R,8S,8'S)-3,3'-(1,2-ethanediyl)bis[7-methyl-9-oxo-6,8-
di(2-pyridinyl-.kappa.N)-3,7-diazabicyclo[3.3.1]nonane-1,5-
dicarboxylate]]]di-, stereoisomer, bis[tetrafluoroborate(1-)] (9CI) (CA
INDEX NAME)

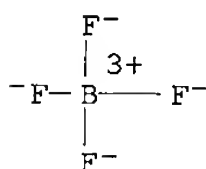
CM 1

CRN 232945-71-0
CMF C50 H56 Cu2 N10 O10
CCI CCS

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

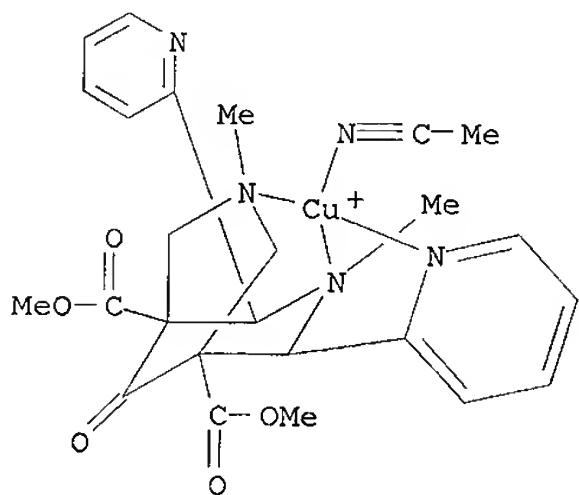
CRN 14874-70-5
CMF B F4
CCI CCS



RN 264910-16-9 HCAPLUS
CN Copper(1+), (acetonitrile)[rel-dimethyl (1R,2S,4R,5S)-3,7-dimethyl-9-oxo-2-(2-pyridinyl-.kappa.N)-4-(2-pyridinyl)-3,7-diazabicyclo[3.3.1]nonane-1,5-dicarboxylate-.kappa.N3,.kappa.N7]-, (T-4)-, tetrafluoroborate(1-) (9CI)
(CA INDEX NAME)

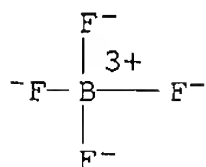
CM 1

CRN 264910-15-8
CMF C25 H29 Cu N5 O5
CCI CCS



CM 2

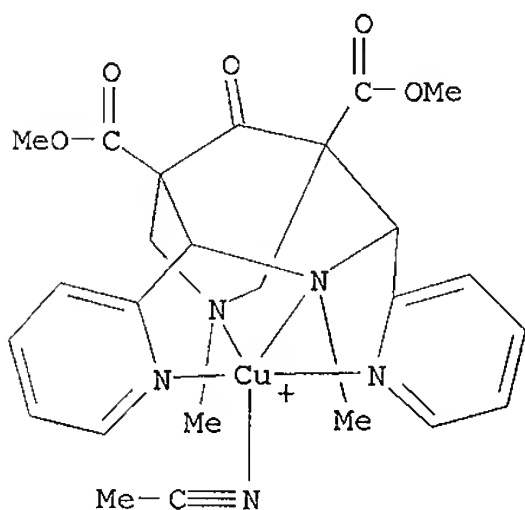
CRN 14874-70-5
CMF B F4
CCI CCS



RN 264910-18-1 HCAPLUS
 CN Copper(1+), (acetonitrile)[rel-dimethyl (1R,2S,4R,5S)-3,7-dimethyl-9-oxo-2,4-di(2-pyridinyl-.kappa.N)-3,7-diazabicyclo[3.3.1]nonane-1,5-dicarboxylate-.kappa.N3,.kappa.N7]-, (SP-5-54)-, salt with trifluoromethanesulfonic acid (1:1) (9CI) (CA INDEX NAME)

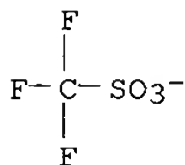
CM 1

CRN 232945-69-6
 CMF C25 H29 Cu N5 O5
 CCI CCS

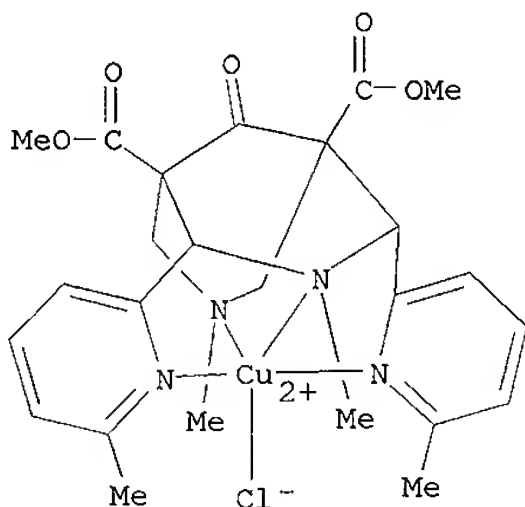


CM 2

CRN 37181-39-8
 CMF C F3 O3 S



RN 264910-45-4 HCAPLUS
 CN Copper(1+), chloro[rel-(1R,2S,4R,5S)-dimethyl 3,7-dimethyl-2,4-bis(6-methyl-2-pyridinyl-.kappa.N)-9-oxo-3,7-diazabicyclo[3.3.1]nonane-1,5-dicarboxylate-.kappa.N3,.kappa.N7]-, chloride, (SP-5-45)- (9CI) (CA INDEX NAME)



● Cl⁻

RN 475980-03-1 HCAPLUS
 CN Copper(2+), bis(acetonitrile) [.mu.-[rel-tetramethyl
 (1R,1'R,5S,5'S,6R,6'R,8S,8'S)-3,3'-[1,3-phenylenebis(methylene)]bis[7-
 methyl-9-oxo-6,8-di(2-pyridinyl-.kappa.N)-3,7-diazabicyclo[3.3.1]nonane-
 1,5-dicarboxylate-.kappa.N3,.kappa.N7]]]di-, stereoisomer,
 bis[tetrafluoroborate(1-)] (9CI) (CA INDEX NAME)

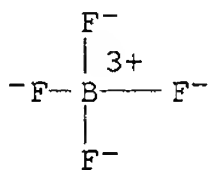
CM 1

CRN 475980-02-0
 CMF C56 H60 Cu2 N10 O10
 CCI CCS

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 14874-70-5
 CMF B F4
 CCI CCS

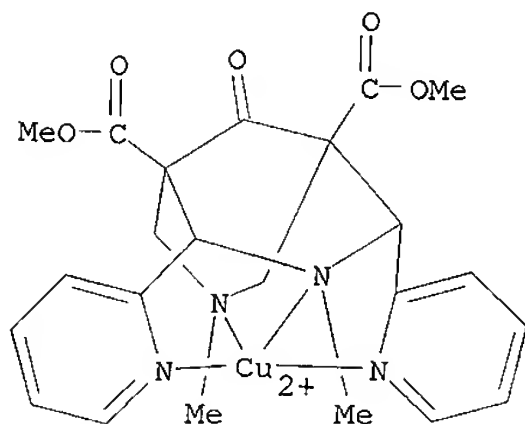


RN 475980-04-2 HCAPLUS
 CN Copper(1+), [dimethyl rel-(1R,2S,4R,5S)-3,7-dimethyl-9-oxo-2,4-bis(2-
 pyridinyl-.kappa.N)-3,7-diazabicyclo[3.3.1]nonane-1,5-dicarboxylate-
 .kappa.N3,.kappa.N7]-, (T-4)-, diperchlorate (9CI) (CA INDEX NAME)

CM 1

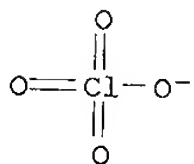
CRN 264910-36-3
CMF C23 H26 Cu N4 O5
CCI CCS

claim 20



CM 2

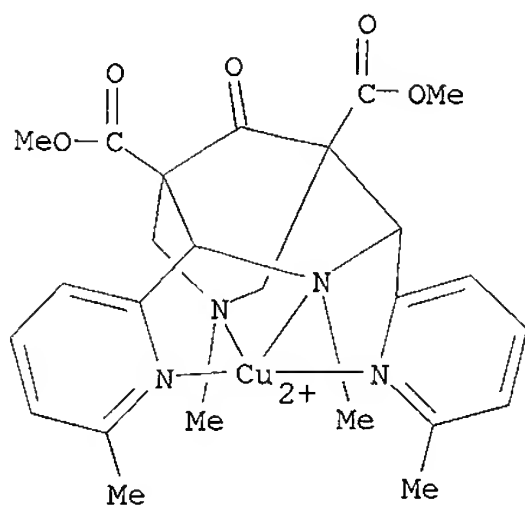
CRN 14797-73-0
CMF C1 O4



RN 475980-05-3 HCAPLUS
CN Copper(2+), [dimethyl rel-(1R,2S,4R,5S)-3,7-dimethyl-2,4-bis(6-methyl-2-pyridinyl-.kappa.N)-9-oxo-3,7-diazabicyclo[3.3.1]nonane-1,5-dicarboxylate-.kappa.N3,.kappa.N7]-, (T-4)-, diperchlorate (9CI) (CA INDEX NAME)

CM 1

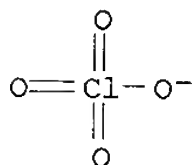
CRN 264910-41-0
CMF C25 H30 Cu N4 O5
CCI CCS



CM 2

CRN 14797-73-0

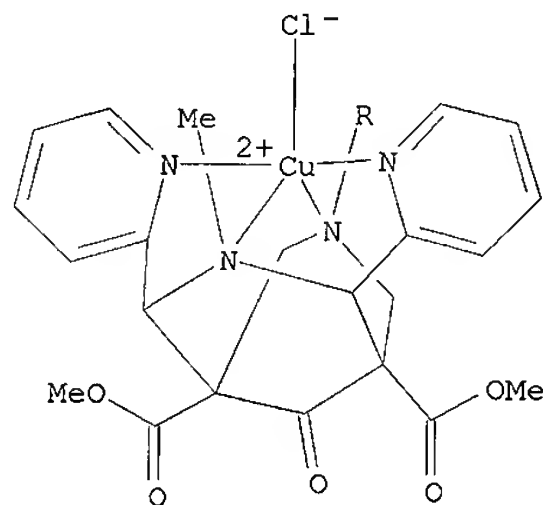
CMF Cl O4



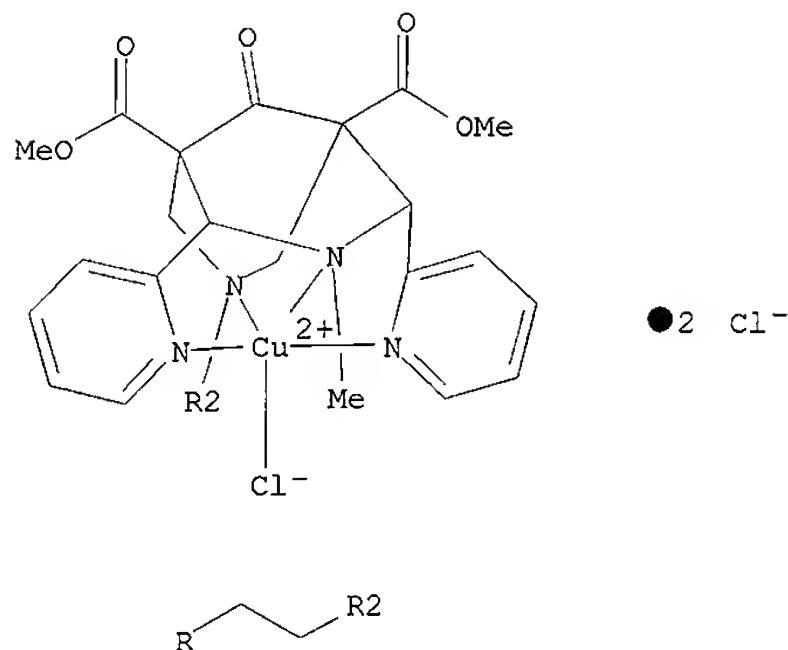
RN 475980-06-4 HCAPLUS

CN Copper(2+), dichloro[.mu.-[rel-tetramethyl (1R,1'R,5S,5'S,6R,6'R,8S,8'S)-3,3'-(1,2-ethanediyl)bis[7-methyl-9-oxo-6,8-di(2-pyridinyl-.kappa.N)-3,7-diazabicyclo[3.3.1]nonane-1,5-dicarboxylate-.kappa.N3,.kappa.N7]]]di-, dichloride, stereoisomer (9CI) (CA INDEX NAME)

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RN 475980-11-1 HCAPLUS
 CN Copper(4+), [.mu.-[rel-tetramethyl (1R,1'R,5S,5'S,6R,6'R,8S,8'S)-3,3'-(1,3-propanediyl)bis[7-methyl-9-oxo-6,8-di(2-pyridinyl-.kappa.N)-3,7-diazabicyclo[3.3.1]nonane-1,5-dicarboxylate-.kappa.N3,.kappa.N7]]]di-, stereoisomer, tetraeperchlorate (9CI) (CA INDEX NAME)

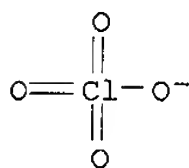
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CRN 475980-10-0
 CMF C47 H52 Cu2 N8 O10
 CCI CCS

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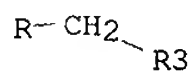
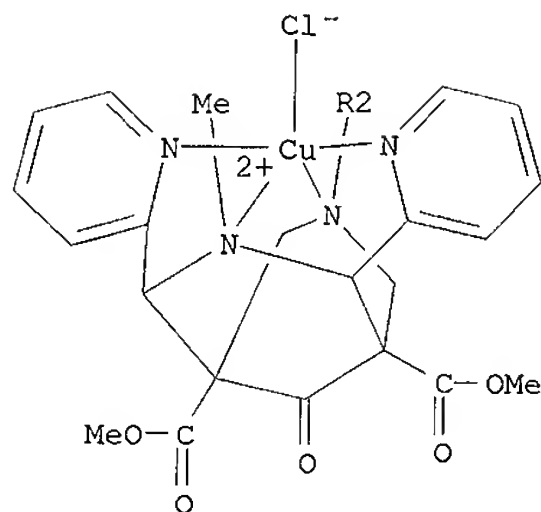
CM 2

CRN 14797-73-0
 CMF Cl O4

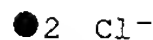
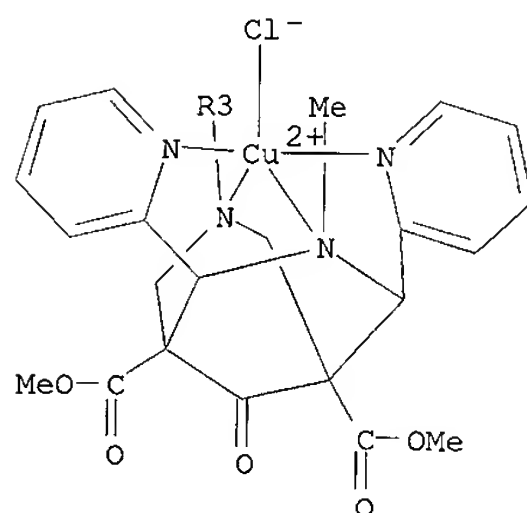
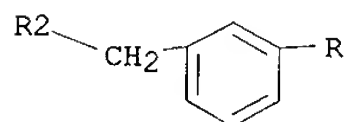


RN 475980-12-2 HCAPLUS
 CN Copper(2+), dichloro[.mu.-[rel-tetramethyl (1R,1'R,5S,5'S,6R,6'R,8S,8'S)-3,3'-(1,3-phenylenebis(methylene)]bis[7-methyl-9-oxo-6,8-di(2-pyridinyl-.kappa.N)-3,7-diazabicyclo[3.3.1]nonane-1,5-dicarboxylate-.kappa.N3,.kappa.N7]]]di-, dichloride, stereoisomer (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 2-A

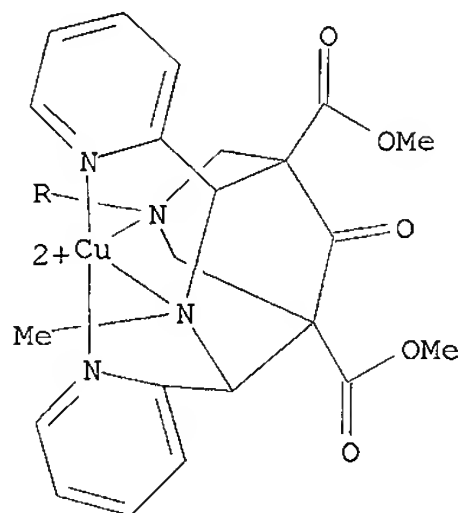


RN 475980-14-4 HCAPLUS
 CN Copper(4+), [.mu.-[rel-tetramethyl (1R,1'R,5S,5'S,6R,6'R,8S,8'S)-3,3'-[1,3-phenylenebis(methylene)]bis[7-methyl-9-oxo-6,8-di(2-pyridinyl-.kappa.N)-3,7-diazabicyclo[3.3.1]nonane-1,5-dicarboxylate-.kappa.N3,.kappa.N7]]]di-, stereoisomer, tetrakis[tetrafluoroborate(1-)] (9CI) (CA INDEX NAME)

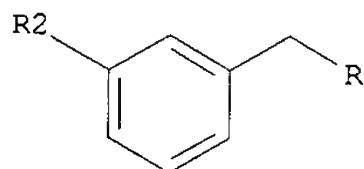
CM 1

CRN 475980-13-3
CMF C52 H54 Cu2 N8 O10
CCI CCS

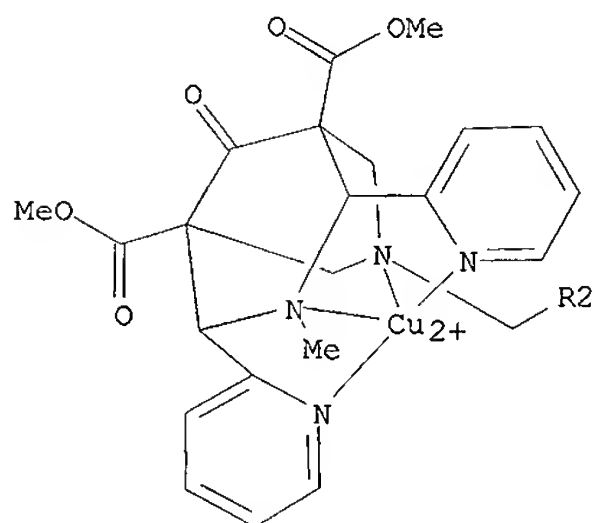
PAGE 1-A



PAGE 2-A



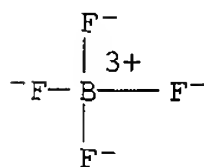
PAGE 3-A



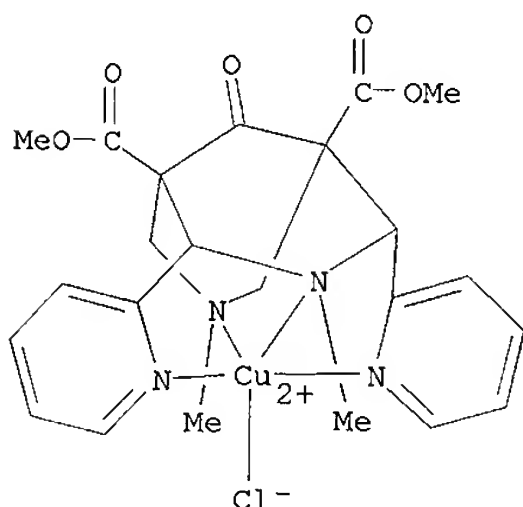
CM 2

CRN 14874-70-5

CMF B F4
CCI CCS



RN 475980-34-8 HCAPLUS
CN Copper(1+), chloro[rel-dimethyl (1R,5S,6R,8S)-3,7-dimethyl-9-oxo-6,8-di(2-pyridinyl-.kappa.N)-3,7-diazabicyclo[3.3.1]nonane-1,5-dicarboxylate-.kappa.N3,.kappa.N7]-, chloride, (SP-5-54)- (9CI) (CA INDEX NAME)



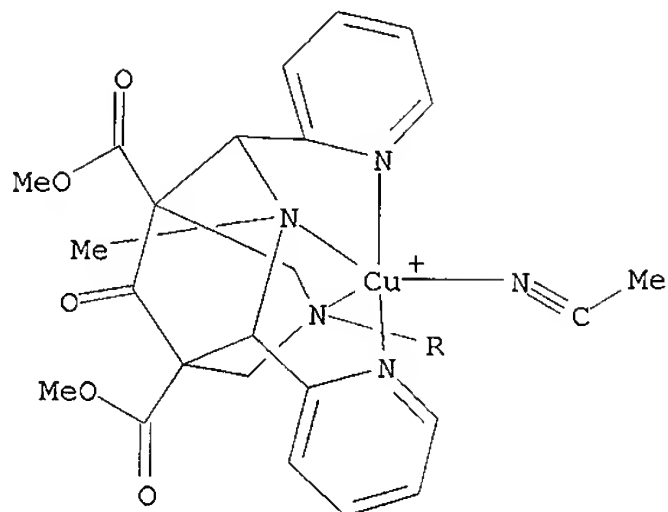
● Cl⁻

RN 476157-15-0 HCAPLUS
CN Copper(2+), bis(acetonitrile)[.mu.-[rel-tetramethyl (1R,1'R,5S,5'S,6R,6'R,8S,8'S)-3,3'-(1,3-propanediyl)bis[7-methyl-9-oxo-6,8-di(2-pyridinyl-.kappa.N)-3,7-diazabicyclo[3.3.1]nonane-1,5-dicarboxylate-.kappa.N3,.kappa.N7]]]di-, stereoisomer, salt with trifluoromethanesulfonic acid (1:2) (9CI) (CA INDEX NAME)

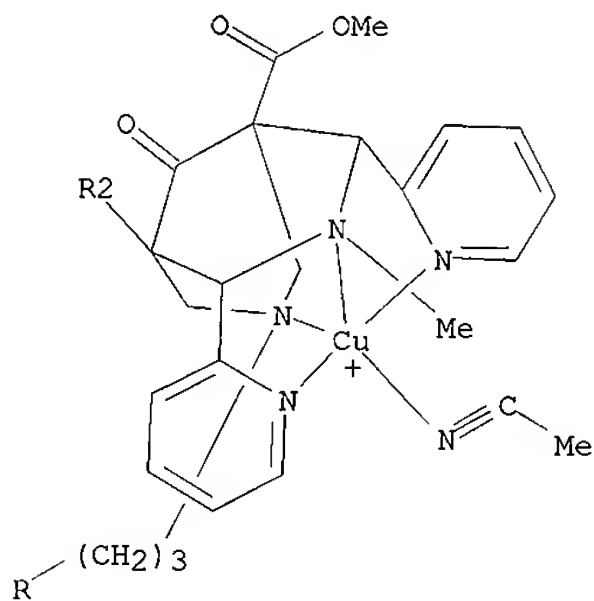
CM 1

CRN 475980-00-8
CMF C51 H58 Cu2 N10 O10
CCI CCS

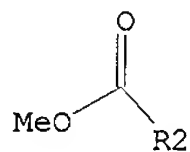
PAGE 1-A



PAGE 2-A



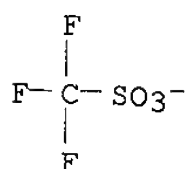
PAGE 3-A



CM 2

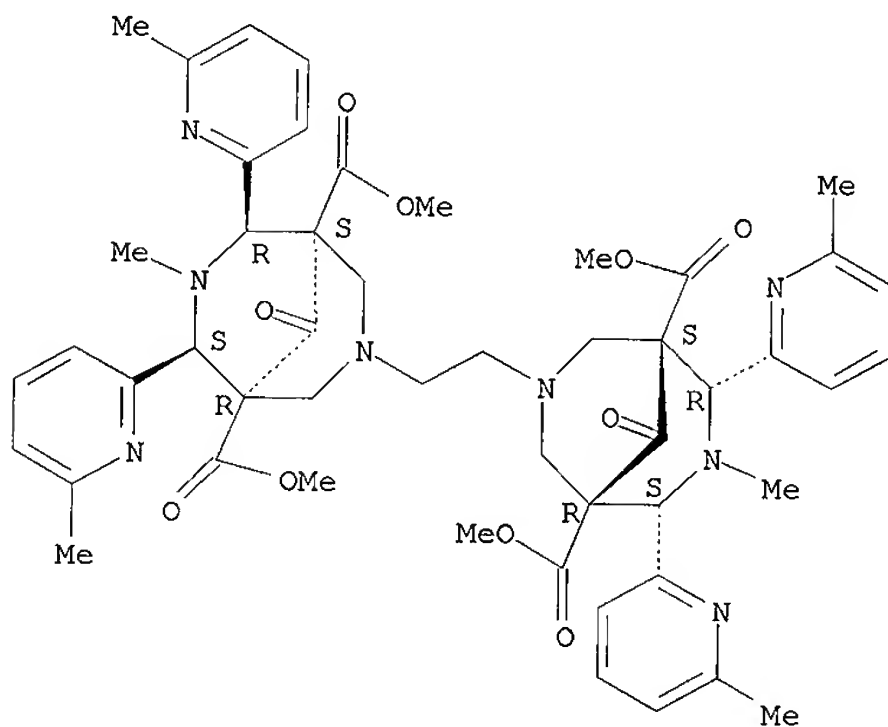
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CMF C F3 O3 S



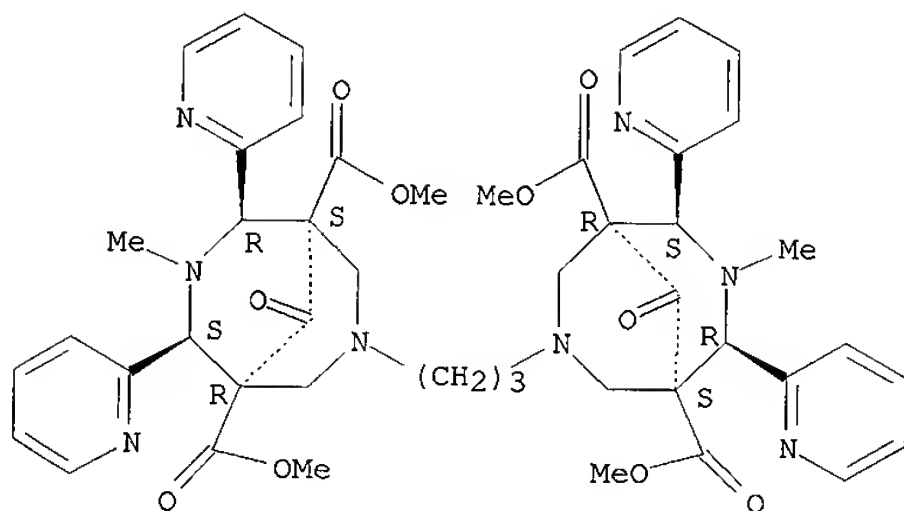
IT 475980-28-0P 475980-30-4P 475980-32-6P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP
 (Preparation); RACT (Reactant or reagent)
 (prepn. and complexation with copper)
 RN 475980-28-0 HCAPLUS
 CN 3,7-Diazabicyclo[3.3.1]nonane-1,5-dicarboxylic acid, 3,3'-(1,2-
 ethanediyl)bis[7-methyl-6,8-bis(6-methyl-2-pyridinyl)-9-oxo-, tetramethyl
 ester, (1R,1'R,5S,5'S,6R,6'R,8S,8'S)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.



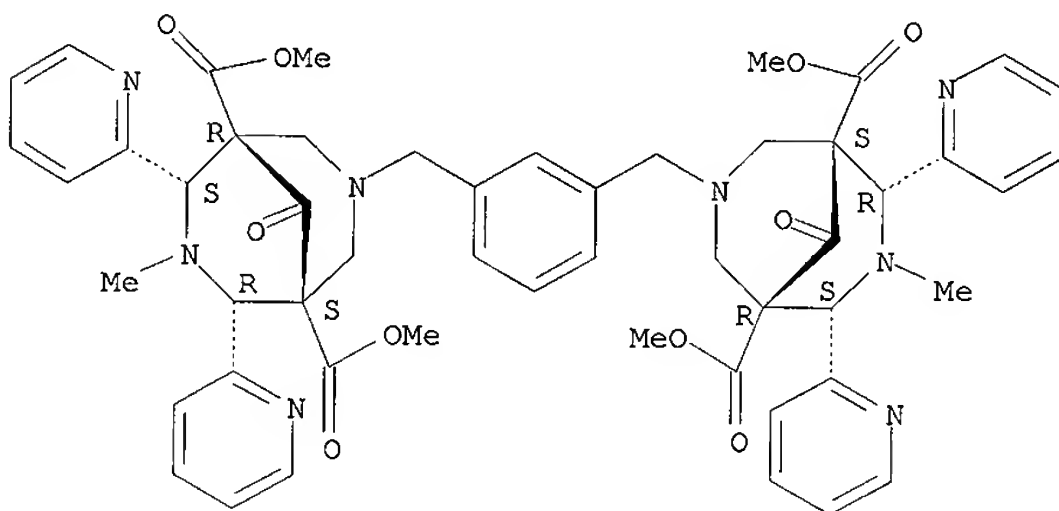
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 CN 3,7-Diazabicyclo[3.3.1]nonane-1,5-dicarboxylic acid, 3,3'-(1,3-
 propanediyl)bis[7-methyl-9-oxo-6,8-di-2-pyridinyl-, tetramethyl ester,
 (1R,1'R,5S,5'S,6R,6'R,8S,8'S)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.



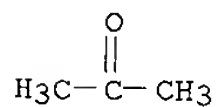
RN 475980-32-6 HCAPLUS
 CN 3,7-Diazabicyclo[3.3.1]nonane-1,5-dicarboxylic acid, 3,3'-[3,1-phenylenebis(methylene)]bis[7-methyl-9-oxo-6,8-di-2-pyridinyl-, tetramethyl ester, (1R,1'R,5S,5'S,6R,6'R,8S,8'S)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.



IT 475979-99-8P 475980-01-9P 475980-08-6DP,
 solvated 475980-09-7P
 RL: PRP (Properties); SPN (Synthetic preparation); PREP
 (Preparation)
 (prepn. and crystal structure)
 RN 475979-99-8 HCAPLUS
 CN Copper(2+), bis(acetonitrile)[.mu.-[rel-tetramethyl
 (1R,1'R,5S,5'S,6R,6'R,8S,8'S)-3,3'-(1,2-ethanediyl)bis[7-methyl-9-oxo-6-(2-
 pyridinyl-.kappa.N)-8-(2-pyridinyl)-3,7-diazabicyclo[3.3.1]nonane-1,5-
 dicarboxylate-.kappa.N3,.kappa.N7]]]di-, stereoisomer,
 bis[(OC-6-11)-hexafluoroantimonate(1-)], compd. with 2-propanone (5:4)
 (9CI) (CA INDEX NAME)
 CM 1
 CRN 67-64-1

CMF C3 H6 O



CM 2

CRN 475979-98-7

CMF C50 H56 Cu2 N10 O10 . 2 F6 Sb

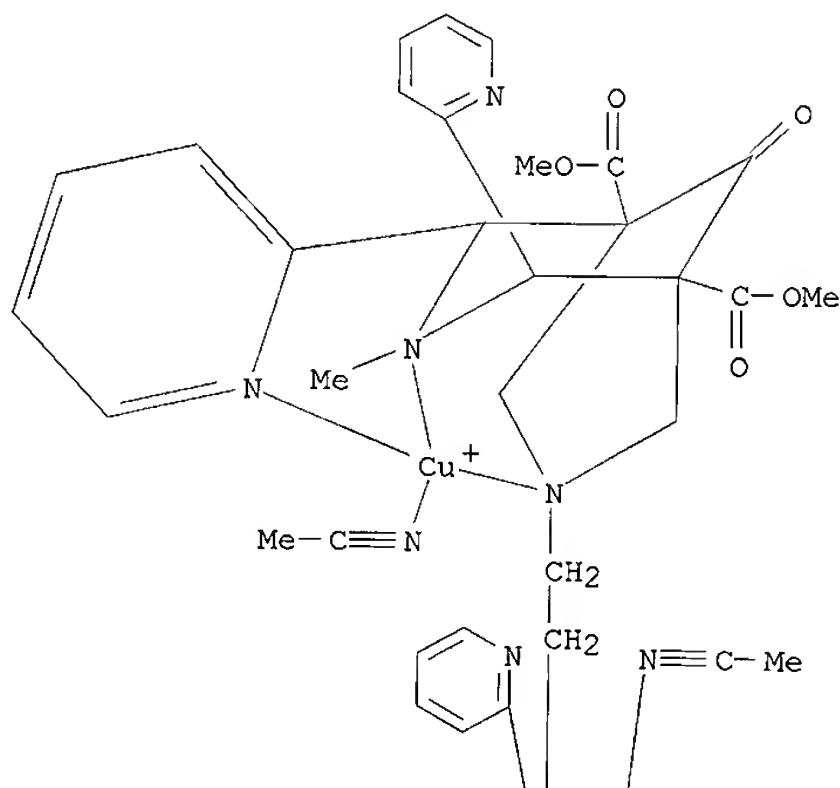
CM 3

CRN 475979-97-6

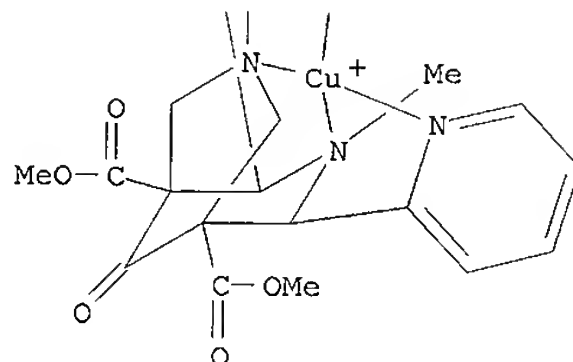
CMF C50 H56 Cu2 N10 O10

CCI CCS

PAGE 1-A



PAGE 2-A

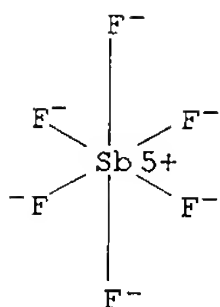


CM 4

CRN 17111-95-4

CMF F6 Sb

CCI CCS



RN 475980-01-9 HCAPLUS

CN Copper(2+), bis(acetonitrile)[.mu.-[rel-tetramethyl
(1R,1'R,5S,5'S,6R,6'R,8S,8'S)-3,3'-(1,3-propanediyl)bis[7-methyl-9-oxo-6,8-
di(2-pyridinyl-.kappa.N)-3,7-diazabicyclo[3.3.1]nonane-1,5-dicarboxylate-
.kappa.N3,.kappa.N7]]]di-, stereoisomer, bis[hexafluorophosphate(1-)]
(9CI) (CA INDEX NAME)

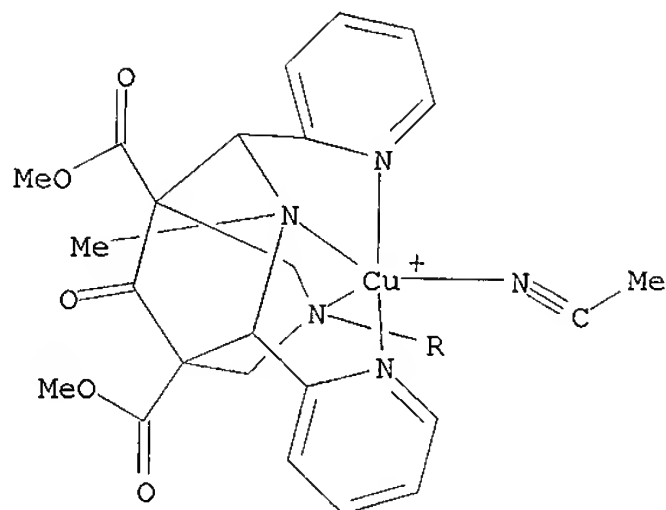
CM 1

CRN 475980-00-8

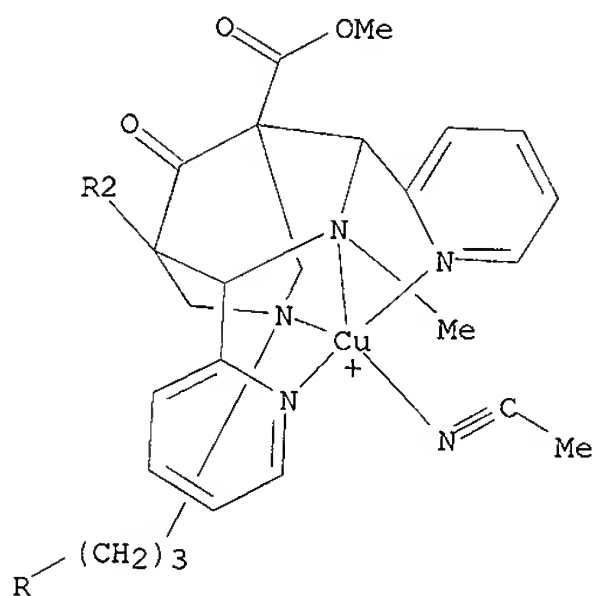
CMF C51 H58 Cu2 N10 O10

CCI CCS

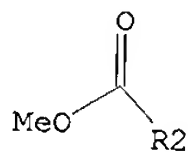
PAGE 1-A



PAGE 2-A



PAGE 3-A

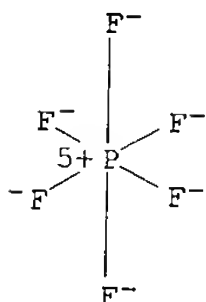


CM 2

CRN 16919-18-9

CMF F6 P

CCI CCS



RN 475980-08-6 HCAPLUS
 CN Copper(4+), bis(acetonitrile)[.mu.-[rel-tetramethyl
 (1R,1'R,5S,5'S,6R,6'R,8S,8'S)-3,3'-(1,2-ethanediyl)bis[7-methyl-9-oxo-6,8-
 di(2-pyridinyl-.kappa.N)-3,7-diazabicyclo[3.3.1]nonane-1,5-dicarboxylate-
 .kappa.N3,.kappa.N7]]]di-, stereoisomer, tetraeperchlorate (9CI) (CA INDEX
 NAME)

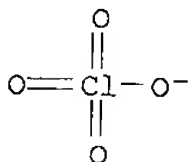
CM 1

CRN 475980-07-5
 CMF C50 H56 Cu2 N10 O10
 CCI CCS

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 14797-73-0
 CMF Cl O4



RN 475980-09-7 HCAPLUS
 CN Copper(2+), dichloro[.mu.-[rel-tetramethyl (1R,1'R,5S,5'S,6R,6'R,8S,8'S)-
 3,3'-(1,3-propanediyl)bis[7-methyl-9-oxo-6,8-di(2-pyridinyl-.kappa.N)-3,7-
 diazabicyclo[3.3.1]nonane-1,5-dicarboxylate-.kappa.N3,.kappa.N7]]]di-,
 dichloride, stereoisomer (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

IT 476157-07-0P

RL: CPS (Chemical process); PEP (Physical, engineering or chemical
 process); PRP (Properties); SPN (Synthetic preparation);
 PREP (Preparation); PROC (Process)
 (prepn. and cyclic voltammetry)

RN 476157-07-0 HCAPLUS

CN Copper(2+), bis(acetonitrile)[.mu.-[rel-tetramethyl
 (1R,1'R,5S,5'S,6R,6'R,8S,8'S)-3,3'-(1,3-propanediyl)bis[7-methyl-9-oxo-6,8-
 di(2-pyridinyl-.kappa.N)-3,7-diazabicyclo[3.3.1]nonane-1,5-dicarboxylate-
 .kappa.N3,.kappa.N7]]]di-, stereoisomer, bis[tetrafluoroborate(1-)] (9CI)
 (CA INDEX NAME)

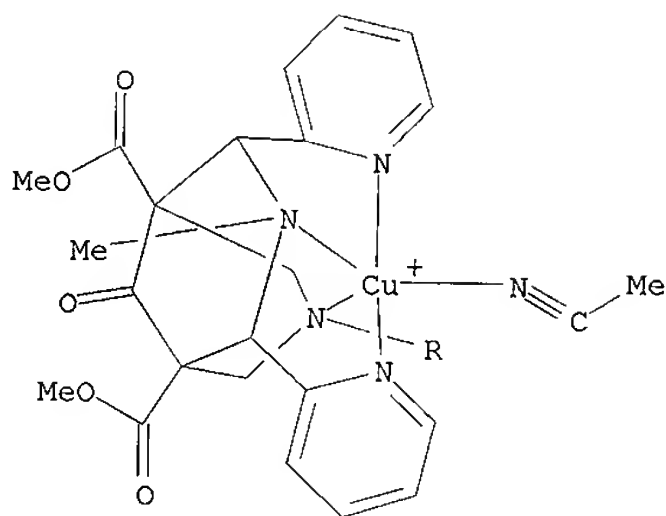
CM 1

CRN 475980-00-8

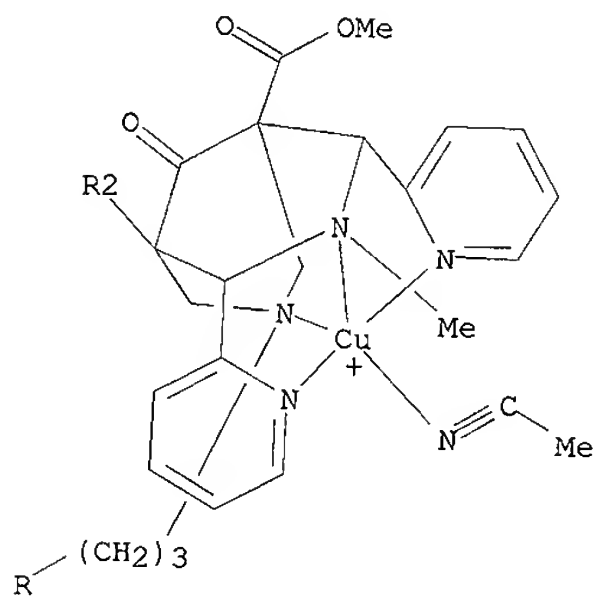
CMF C51 H58 Cu2 N10 O10

CCI CCS

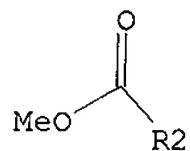
PAGE 1-A



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PAGE 3-A

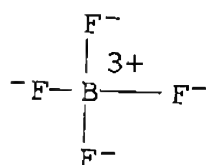


CM 2

CRN 14874-70-5

CMF B F4

CCI CCS



IT 232945-73-2P

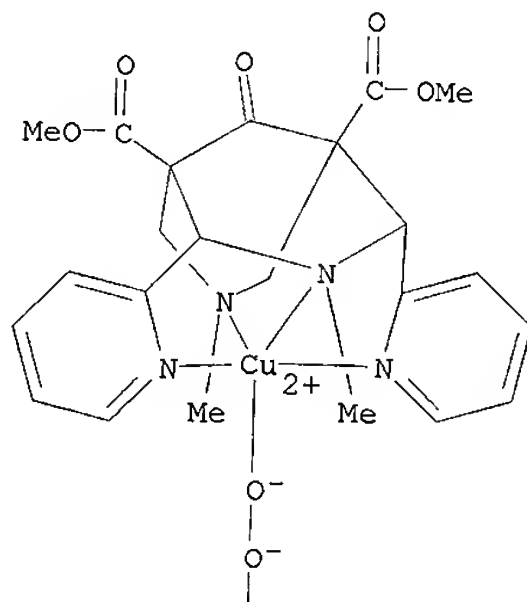
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)

(prepn., peroxidn. kinetics and Raman spectra)

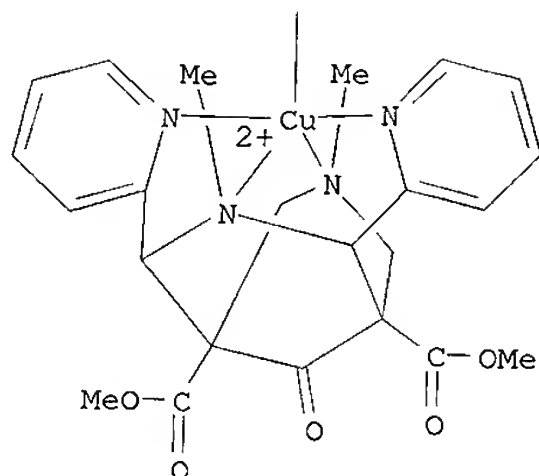
RN 232945-73-2 HCAPLUS

CN Copper(2+), bis[rel-dimethyl (1R,2S,4R,5S)-3,7-dimethyl-9-oxo-2,4-di(2-pyridinyl-.kappa.N)-3,7-diazabicyclo[3.3.1]nonane-1,5-dicarboxylate-.kappa.N3,.kappa.N7][.mu.-(peroxy-.kappa.O:.kappa.O')]di-, stereoisomer (9CI) (CA INDEX NAME)

PAGE 1-A

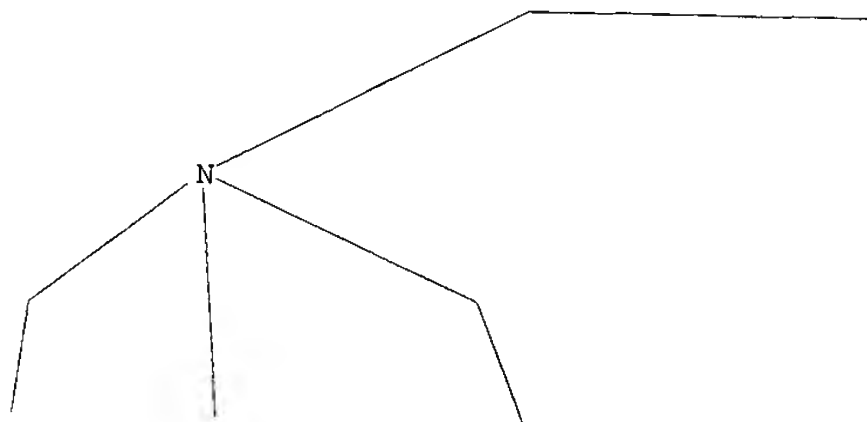


PAGE 2-A

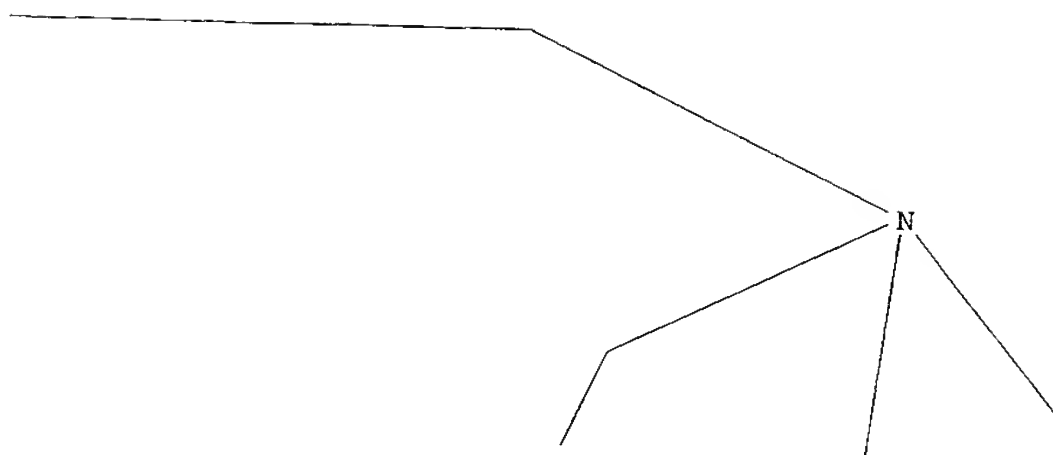


IT 232945-74-3P 475980-17-7P 475980-20-2P
 RL: PRP (Properties); SPN (Synthetic preparation); PREP
 (Preparation)
 (prepn., stability and Raman spectra)
 RN 232945-74-3 HCAPLUS
 CN Copper(2+), [μ -(peroxy- κ O: κ O')][μ -[rel-tetramethyl
 (1R,1'R,5S,5'S,6R,6'R,8S,8'S)-3,3'-(1,2-ethanediyl)bis[7-methyl-9-oxo-6,8-
 di(2-pyridinyl- κ N)-3,7-diazabicyclo[3.3.1]nonane-1,5-dicarboxylate-
 κ N3, κ N7]]di-, stereoisomer (9CI) (CA INDEX NAME)

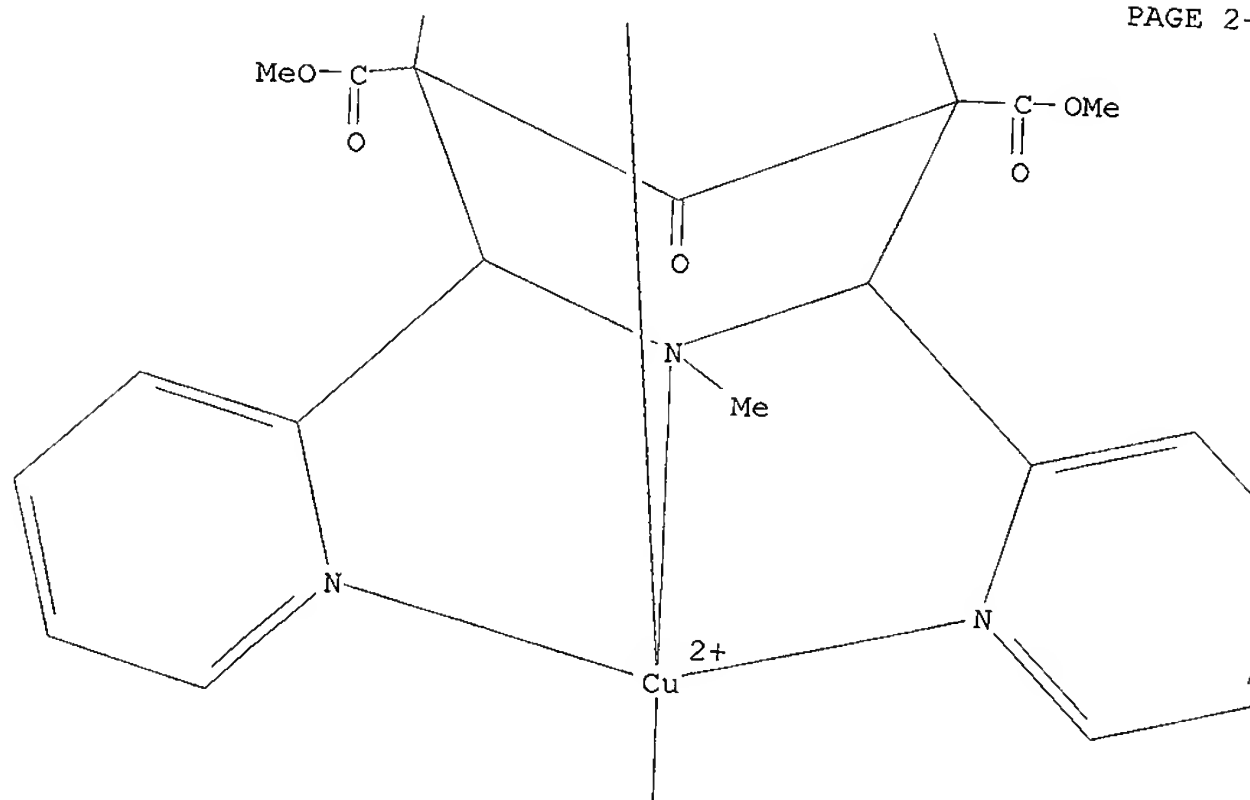
PAGE 1-A



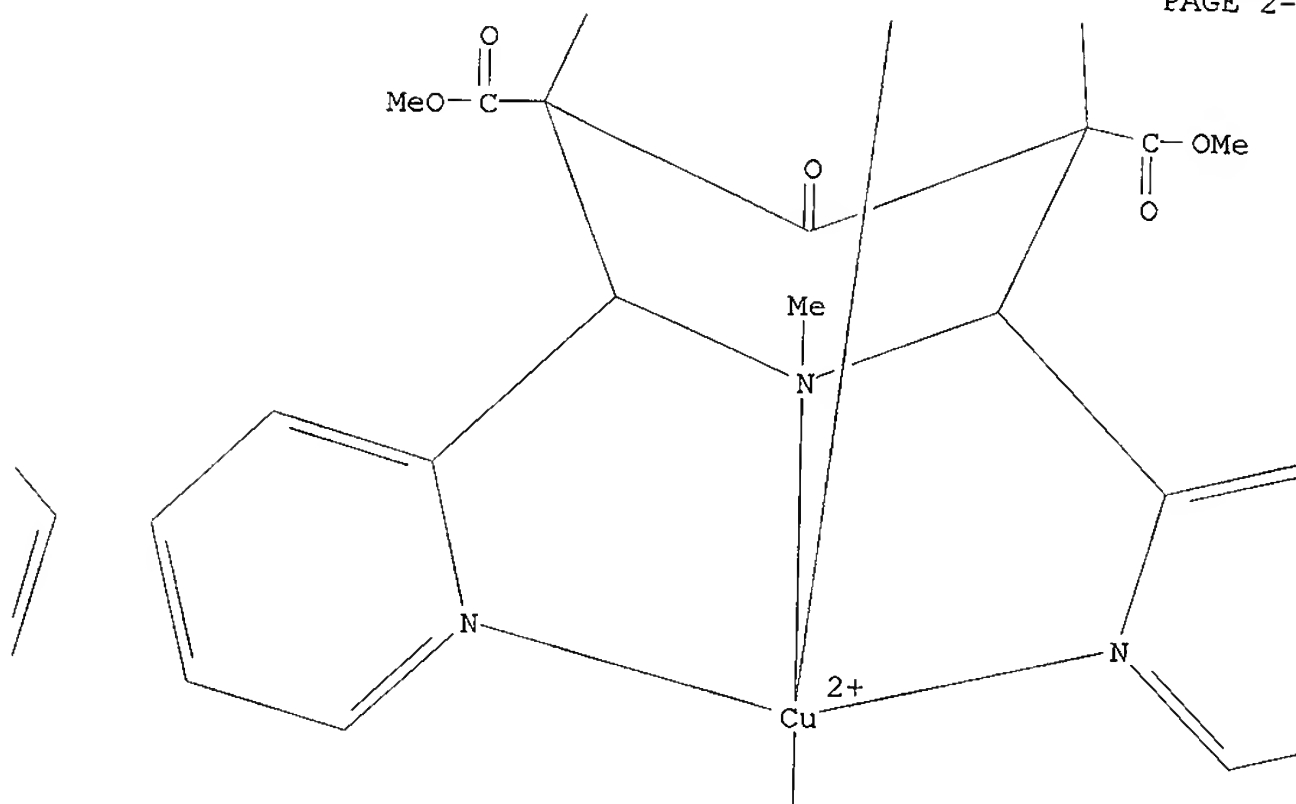
PAGE 1-B



PAGE 2-A



PAGE 2-B

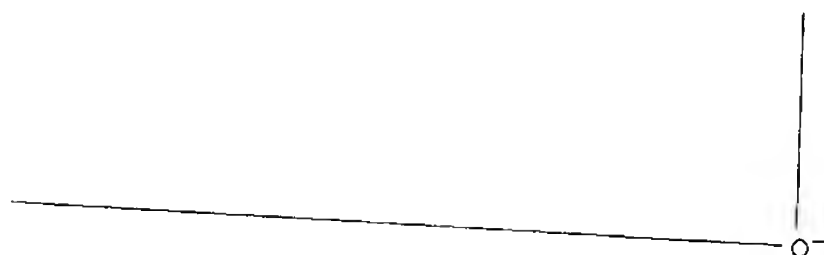


PAGE 2-C

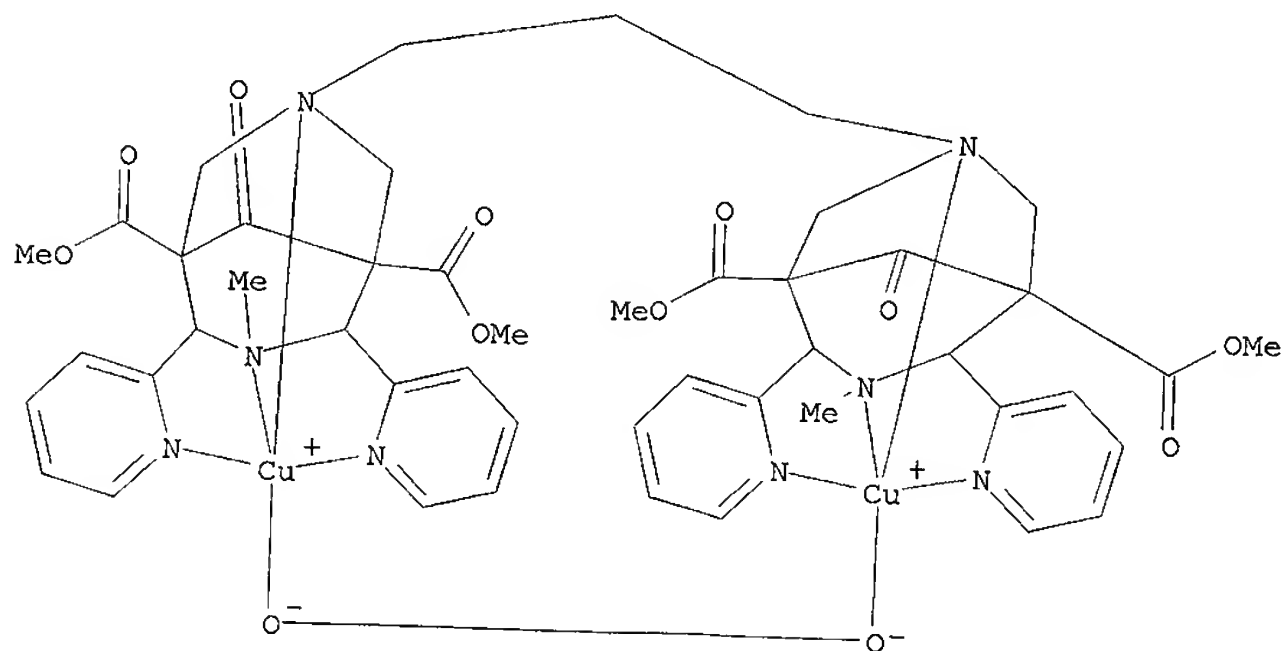
PAGE 3-A



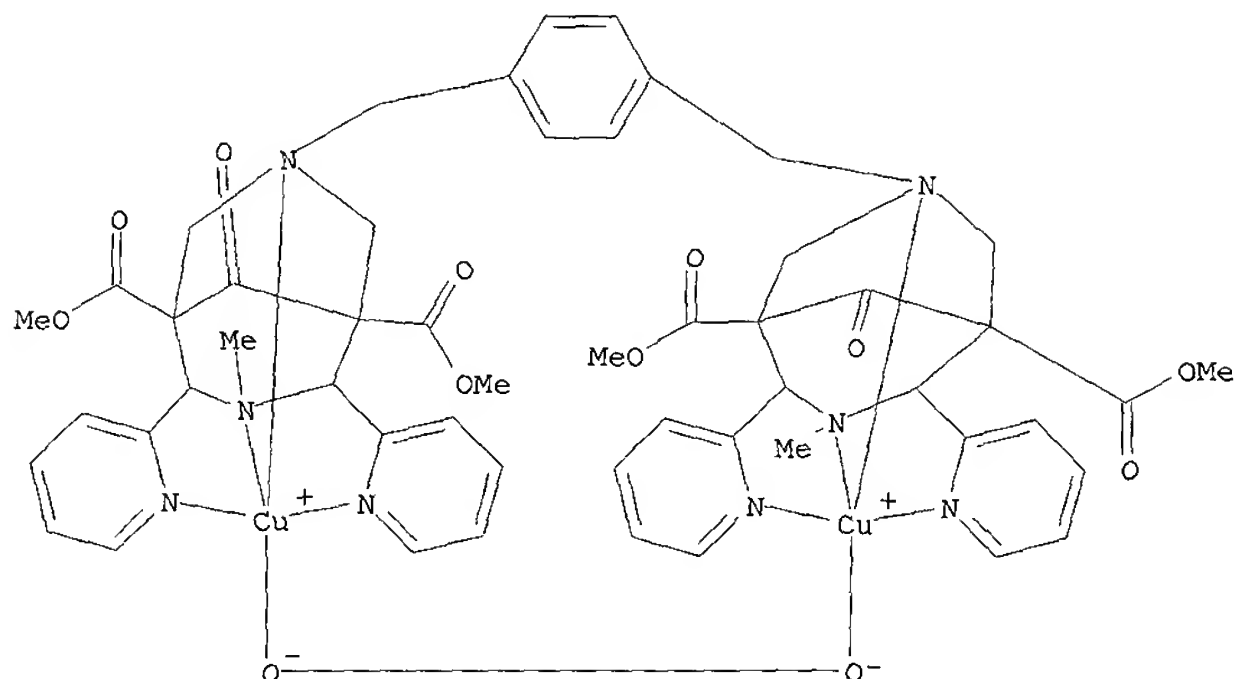
PAGE 3-B



RN 475980-17-7 HCAPLUS
 CN Copper, [μ -(peroxy- κ O: κ O')][μ -[rel-tetramethyl
 (1R,1'R,5S,5'S,6R,6'R,8S,8'S)-3,3'-(1,3-propanediyl)bis[7-methyl-9-oxo-6,8-
 di(2-pyridinyl- κ N)-3,7-diazabicyclo[3.3.1]nonane-1,5-dicarboxylate-
 κ N3, κ N7]]]di-, stereoisomer (9CI) (CA INDEX NAME)



RN 475980-20-2 HCAPLUS
 CN Copper, [μ -(peroxy- κ O: κ O')][μ -[rel-tetramethyl
 (1R,1'R,5S,5'S,6R,6'R,8S,8'S)-3,3'-[1,4-phenylenebis(methylene)]bis[7-
 methyl-9-oxo-6,8-di(2-pyridinyl- κ N)-3,7-diazabicyclo[3.3.1]nonane-
 1,5-dicarboxylate- κ N3, κ N7]]]di-, stereoisomer (9CI) (CA INDEX
 NAME)



RE.CNT 70 THERE ARE 70 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L24 ANSWER 4 OF 22 HCAPLUS COPYRIGHT 2003 ACS on STN

AN 2002:623939 HCAPLUS

DN 138:198140

TI Stereochemistry and opioid receptor affinity of 2,4-dipyridine-3,7-diazabicyclo[3.3.1]nonanones - influence of the substituent in position N7

AU Cambareri, A.; Zlotos, D. P.; Holzgrabe, U.; Englberger, W.; Haurand, M.

CS Institut für Pharmazie und Lebensmittelchemie, Universität Würzburg, Würzburg, D-97074, Germany

SO Journal of Heterocyclic Chemistry (2002), 39(4), 789-798

CODEN: JHTCAD; ISSN: 0022-152X

PB HeteroCorporation

DT Journal

LA English

AB The stereochem. the 2,4-di-arene substituted 3,7-diazabicyclo[3.3.1]nonan-9-one 1,5-dicarboxylate skeleton was found to be regulated by the kind of substituents attached to the arene rings as well as to the nitrogens N3 and N7. Conformational isomers, i.e., chair/chair, boat/chair and chair/boat, in addn. to cis/trans configurational isomerism with respect to the arene rings were reported. Since the analgesic potency of the diazabicyclononanones, which is related to their affinity toward the .kappa.-opioid receptor, is governed by the stereochem. of the mols., the influence of the substituents at nitrogen N7 was studied herein. The various differently N7 substituted diazabicyclononanones were found to crystallize in a highly sym. chair/chair conformation. However, beside H22 none of the compds. exhibits high affinity to the .kappa. receptor. In contrast, some compds. with affinity to the .mu. receptor could be identified. In addn., the N7-(4-carboxybenzyl) substituted compd. was found to have affinity to the .delta. receptor in the submicromolar range of concn.

IT 42165-93-5P 42165-94-6P 42165-95-7P

500116-69-8P 500116-70-1P 500116-72-3P

500116-73-4P 500116-74-5P 500116-75-6P

Priority

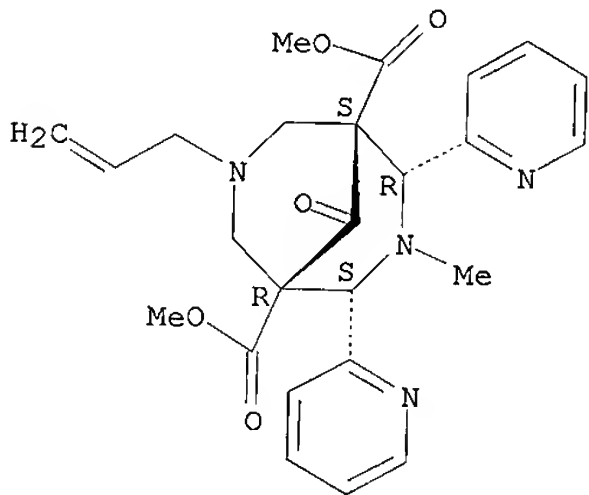
500116-79-0P 500116-80-3P 500116-81-4P

preparation); BIOL (Biological study); PREP (Preparation)
(structure-activity relationship and opioid receptor affinity of
dipyridine diazabicyclononanes)

RN 42165-93-5 HCAPLUS

CN 3,7-Diazabicyclo[3.3.1]nonane-1,5-dicarboxylic acid, 3-methyl-9-oxo-7-(2-propenyl)-2,4-di-2-pyridinyl-, dimethyl ester, (1R,2S,4R,5S)-rel- (9CI)
(CA INDEX NAME)

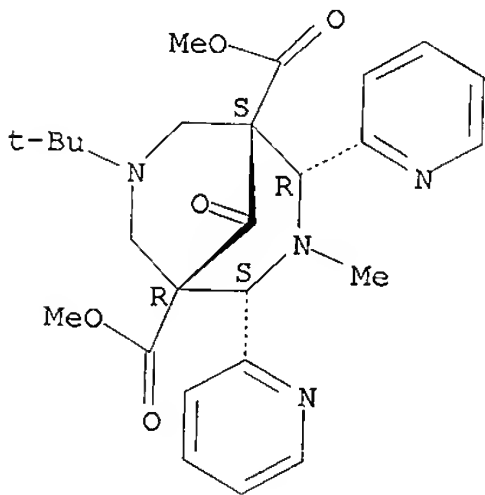
Relative stereochemistry.



RN 42165-94-6 HCAPLUS

CN 3,7-Diazabicyclo[3.3.1]nonane-1,5-dicarboxylic acid, 7-(1,1-dimethylethyl)-
3-methyl-9-oxo-2,4-di-2-pyridinyl-, dimethyl ester, (1R,2S,4R,5S)-rel-
(9CI) (CA INDEX NAME)

Relative stereochemistry.

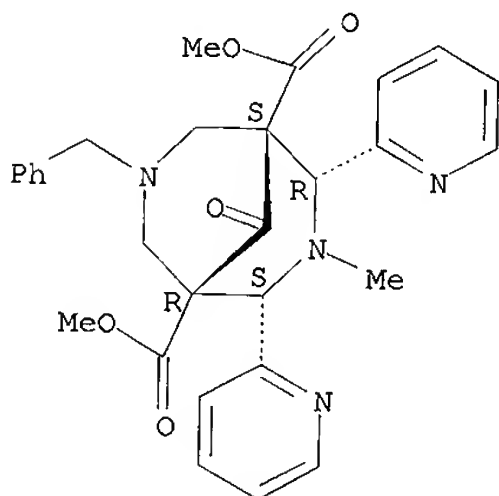


RN 42165-95-7 HCAPLUS

CN 3,7-Diazabicyclo[3.3.1]nonane-1,5-dicarboxylic acid, 3-methyl-9-oxo-7-(phenylmethyl)-2,4-di-2-pyridinyl-, dimethyl ester, (1R,2S,4R,5S)-rel-

(9CI) (CA INDEX NAME)

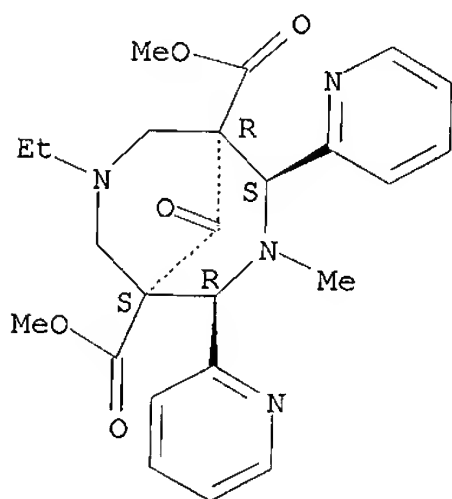
Relative stereochemistry.



RN 500116-69-8 HCAPLUS

CN 3,7-Diazabicyclo[3.3.1]nonane-1,5-dicarboxylic acid, 7-ethyl-3-methyl-9-oxo-2,4-di-2-pyridinyl-, dimethyl ester, (1R,2S,4R,5S)-rel- (9CI) (CA INDEX NAME)

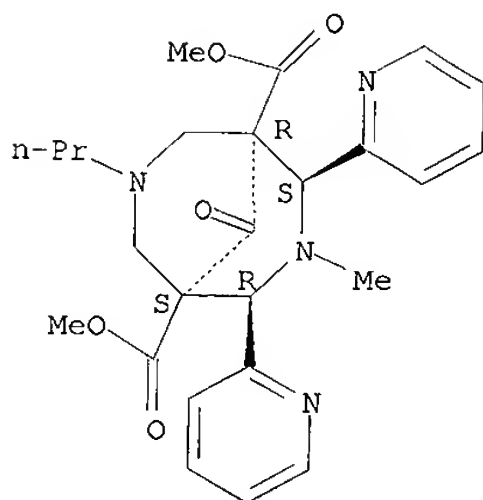
Relative stereochemistry.



RN 500116-70-1 HCAPLUS

CN 3,7-Diazabicyclo[3.3.1]nonane-1,5-dicarboxylic acid, 3-methyl-9-oxo-7-propyl-2,4-di-2-pyridinyl-, dimethyl ester, (1R,2S,4R,5S)-rel- (9CI) (CA INDEX NAME)

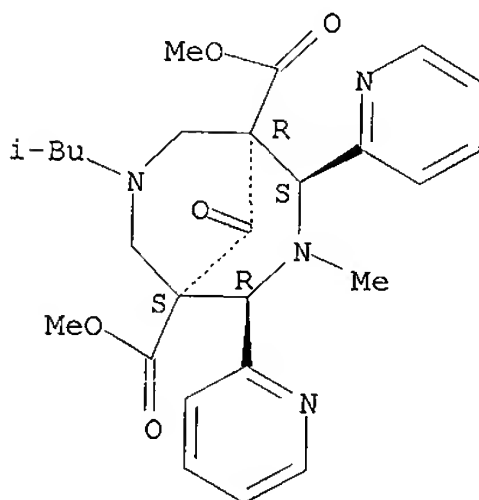
Relative stereochemistry.



RN 500116-72-3 HCAPLUS

CN 3,7-Diazabicyclo[3.3.1]nonane-1,5-dicarboxylic acid, 3-methyl-7-(2-methylpropyl)-9-oxo-2,4-di-2-pyridinyl-, dimethyl ester, (1R,2S,4R,5S)-rel- (9CI) (CA INDEX NAME)

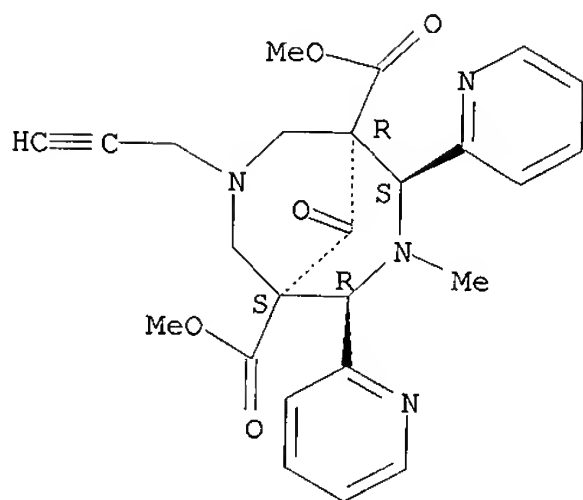
Relative stereochemistry.



RN 500116-73-4 HCAPLUS

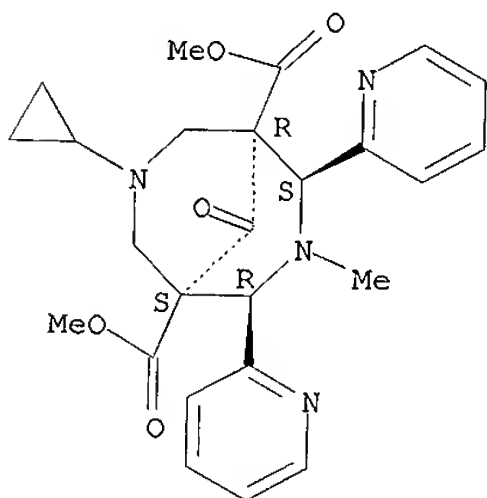
CN 3,7-Diazabicyclo[3.3.1]nonane-1,5-dicarboxylic acid, 3-methyl-9-oxo-7-(2-propynyl)-2,4-di-2-pyridinyl-, dimethyl ester, (1R,2S,4R,5S)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.



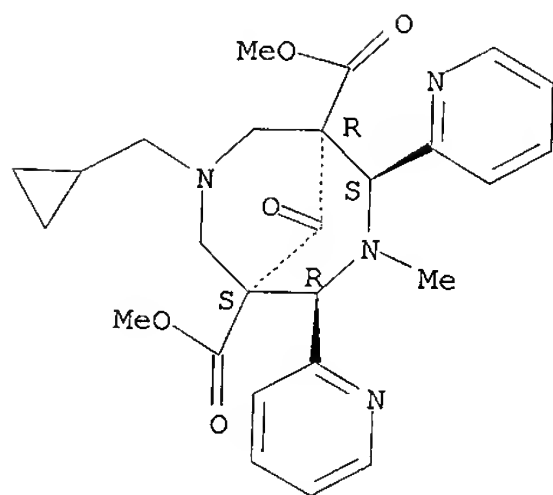
RN 500116-74-5 HCAPLUS
 CN 3,7-Diazabicyclo[3.3.1]nonane-1,5-dicarboxylic acid, 7-cyclopropyl-3-methyl-9-oxo-2,4-di-2-pyridinyl-, dimethyl ester, (1R,2S,4R,5S)-rel- (9CI)
 (CA INDEX NAME)

Relative stereochemistry.



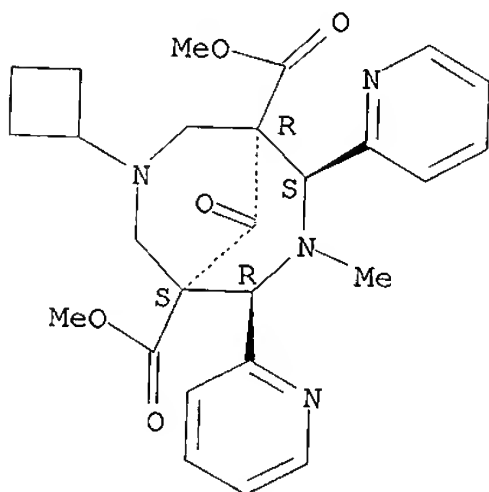
RN 500116-75-6 HCAPLUS
 CN 3,7-Diazabicyclo[3.3.1]nonane-1,5-dicarboxylic acid, 7-(cyclopropylmethyl)-3-methyl-9-oxo-2,4-di-2-pyridinyl-, dimethyl ester, (1R,2S,4R,5S)-rel- (9CI)
 (CA INDEX NAME)

Relative stereochemistry.



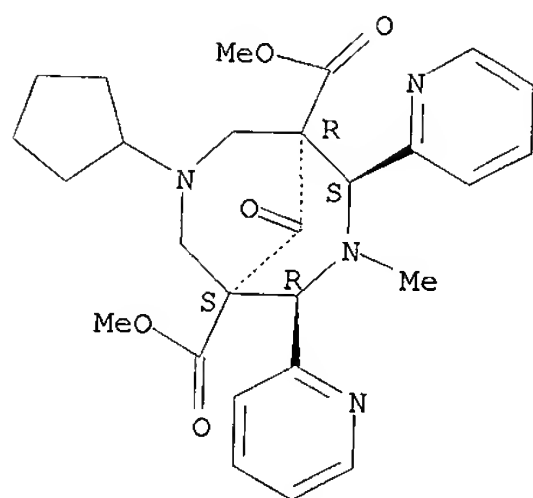
RN 500116-76-7 HCAPLUS
 CN 3,7-Diazabicyclo[3.3.1]nonane-1,5-dicarboxylic acid, 7-cyclobutyl-3-methyl-9-oxo-2,4-di-2-pyridinyl-, dimethyl ester, (1R,2S,4R,5S)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.



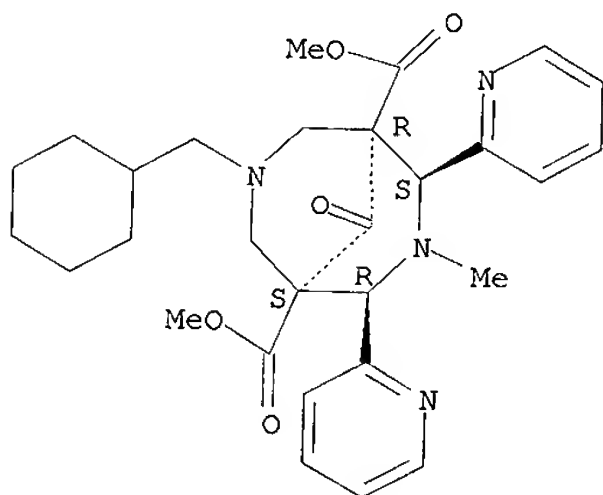
RN 500116-77-8 HCAPLUS
 CN 3,7-Diazabicyclo[3.3.1]nonane-1,5-dicarboxylic acid, 7-cyclopentyl-3-methyl-9-oxo-2,4-di-2-pyridinyl-, dimethyl ester, (1R,2S,4R,5S)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.



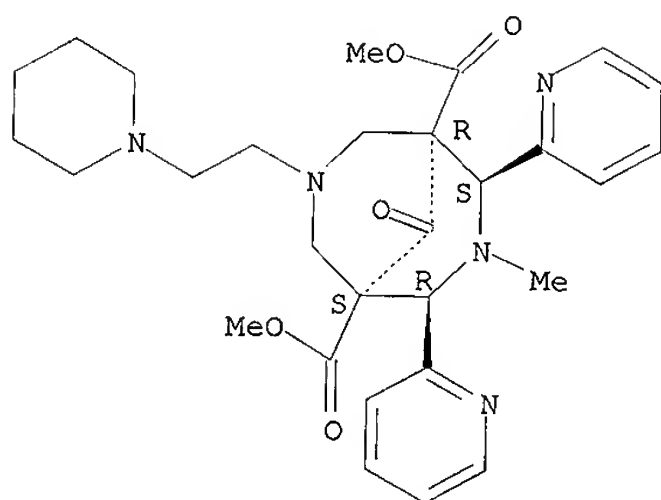
RN 500116-78-9 HCAPLUS
 CN 3,7-Diazabicyclo[3.3.1]nonane-1,5-dicarboxylic acid, 7-(cyclohexylmethyl)-3-methyl-9-oxo-2,4-di-2-pyridinyl-, dimethyl ester, (1R,2S,4R,5S)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.



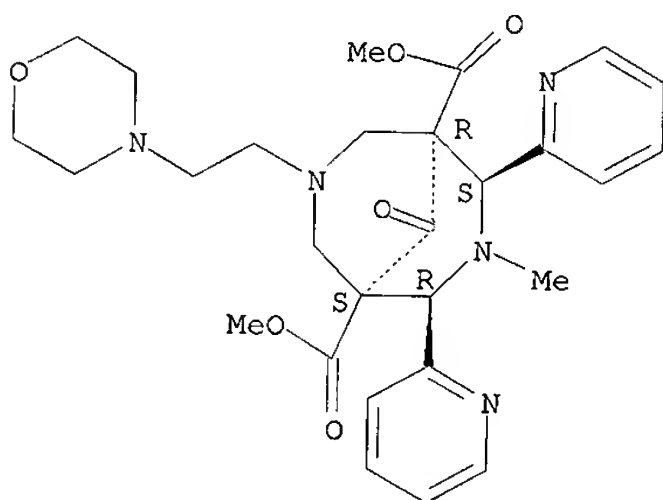
RN 500116-79-0 HCAPLUS
 CN 3,7-Diazabicyclo[3.3.1]nonane-1,5-dicarboxylic acid, 3-methyl-9-oxo-7-[2-(1-piperidinyl)ethyl]-2,4-di-2-pyridinyl-, dimethyl ester, (1R,2S,4R,5S)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.



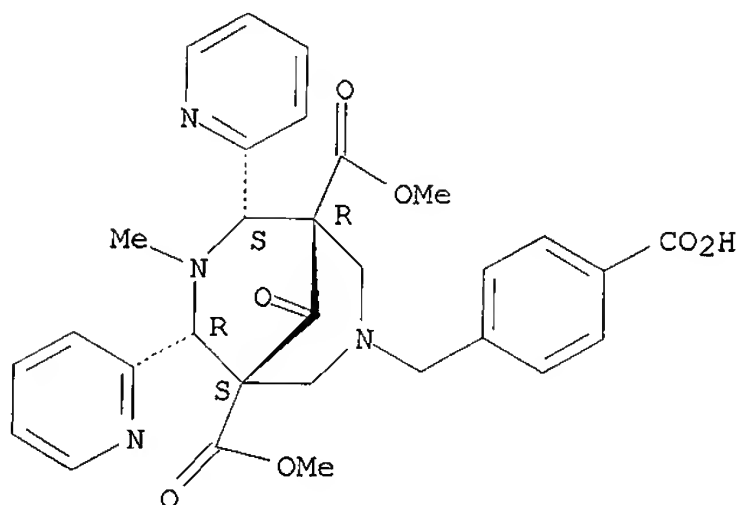
RN 500116-80-3 HCAPLUS
 CN 3,7-Diazabicyclo[3.3.1]nonane-1,5-dicarboxylic acid, 3-methyl-7-[2-(4-morpholinyl)ethyl]-9-oxo-2,4-di-2-pyridinyl-, dimethyl ester, (1R,2S,4R,5S)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.



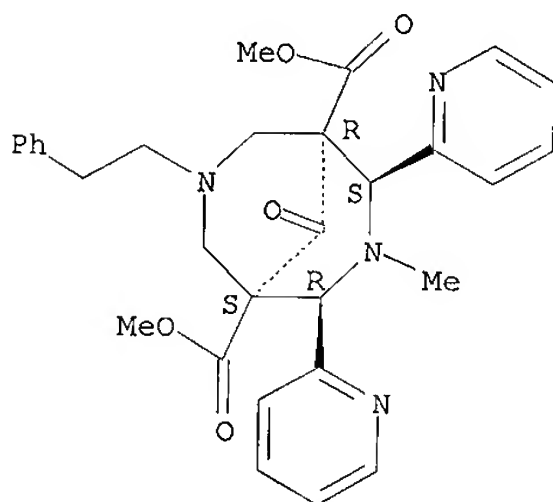
RN 500116-81-4 HCAPLUS
 CN 3,7-Diazabicyclo[3.3.1]nonane-1,5-dicarboxylic acid, 7-[(4-carboxyphenyl)methyl]-3-methyl-9-oxo-2,4-di-2-pyridinyl-, 1,5-dimethyl ester, (1R,2S,4R,5S)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.



RN 500116-82-5 HCAPLUS
 CN 3,7-Diazabicyclo[3.3.1]nonane-1,5-dicarboxylic acid, 3-methyl-9-oxo-7-(2-phenylethyl)-2,4-di-2-pyridinyl-, dimethyl ester, (1R,2S,4R,5S)-rel- (9CI)
 (CA INDEX NAME)

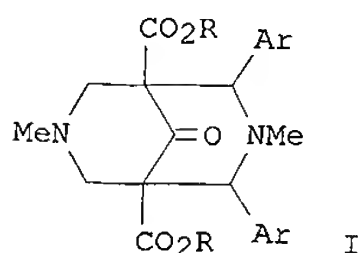
Relative stereochemistry.



RE.CNT 19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L24 ANSWER 5 OF 22 HCAPLUS COPYRIGHT 2003 ACS on STN
 AN 2000:632699 HCAPLUS
 DN 133:362761
 TI Synthesis and Opioid Receptor Affinity of a Series of 2,4-Diaryl-Substituted 3,7-Diazabicyclononanones
 AU Siener, Tom; Cambareri, Antonella; Kuhl, Ulrich; Englberger, Werner; Haurand, Michael; Koegel, Babette; Holzgrabe, Ulrike
 CS Institute of Pharmacy and Food Chemistry, University of Wuerzburg, Wuerzburg, 97074, Germany
 SO Journal of Medicinal Chemistry (2000), 43(20), 3746-3751
 CODEN: JMCMAR; ISSN: 0022-2623
 PB American Chemical Society
 DT Journal
 LA English

OS CASREACT 133:362761
GI



AB 3,7-Diazabicyclo[3.3.1]nonan-9-ones (I; R = Me, Et; Ar = 2-, 3-, 4-pyridinyl; 1-, 2-naphthalenyl; 2-, 4-quinolinyl; substituted phenyl) were synthesized using a double Mannich procedure. Radioligand binding assays were performed to measure the affinity of the compds. to the .mu.-, .delta.-, and .kappa.-opioid receptors. The affinity of all 2,4-diphenyl-substituted 3,7-diazabicyclo[3.3.1]nonan-9-ones to the .mu.- and .delta.-receptors was found to be low. In contrast, with exception of the nitrophenyl- and cyanophenyl-substituted compds., most of the diazabicycles showed considerable affinity for the .kappa.-receptor. In particular, the m-fluoro-, p-methoxy-, and m-hydroxy-substituted compds. have an affinity in the submicromolar range. Because of soly. problems in aq. media, salts of H22 (I; R = Me, Ar = 2-pyridinyl) were synthesized. The methiodide shows high .kappa.-affinity and may, thus, be a promising candidate for development of a peripheral .kappa.-agonist, e.g., for use in the case of rheumatoid arthritis.

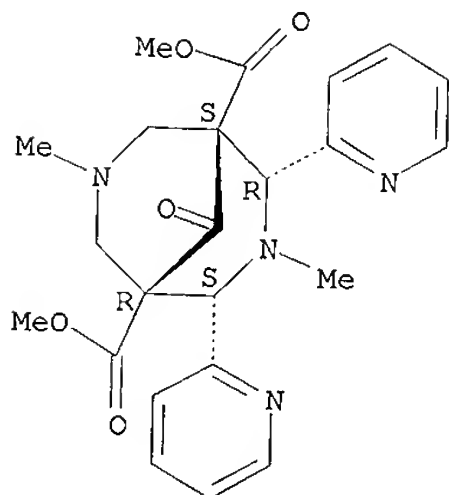
IT 42165-92-4P 250339-63-0P 306994-60-5P
306994-61-6P 306994-63-8P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(prepn. and opioid receptor affinity of 2,4-diaryl-3,7-diazabicyclononanones)

RN 42165-92-4 HCAPLUS

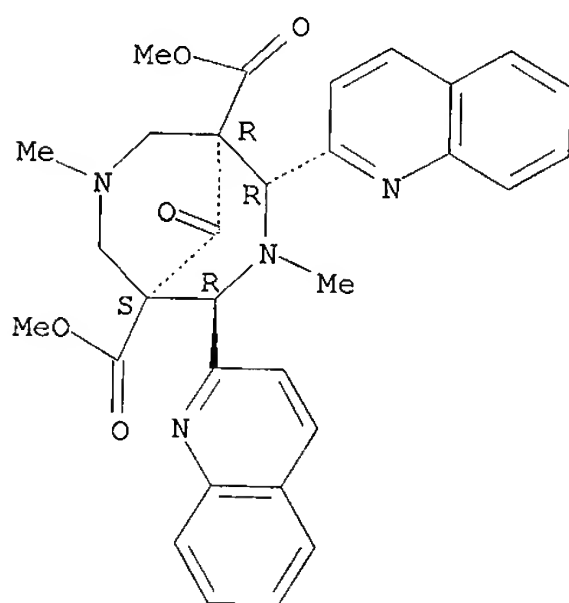
CN 3,7-Diazabicyclo[3.3.1]nonane-1,5-dicarboxylic acid, 3,7-dimethyl-9-oxo-2,4-di-2-pyridinyl-, dimethyl ester, (1R,2S,4R,5S)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.



RN 250339-63-0 HCAPLUS
 CN 3,7-Diazabicyclo[3.3.1]nonane-1,5-dicarboxylic acid, 3,7-dimethyl-9-oxo-2,4-di-2-quinolinyl-, dimethyl ester, (1R,2R,4R,5S)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.

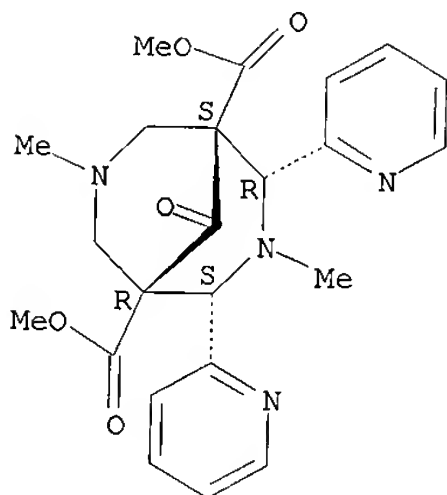


RN 306994-60-5 HCAPLUS
 CN 3,7-Diazabicyclo[3.3.1]nonane-1,5-dicarboxylic acid, 3,7-dimethyl-9-oxo-2,4-di-2-pyridinyl-, dimethyl ester, (1R,2S,4R,5S)-rel-, ethanedioate (9CI) (CA INDEX NAME)

CM 1

CRN 42165-92-4
 CMF C23 H26 N4 O5

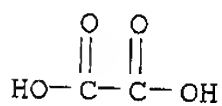
Relative stereochemistry.



CM 2

CRN 144-62-7

CMF C2 H2 O4



RN 306994-61-6 HCAPLUS

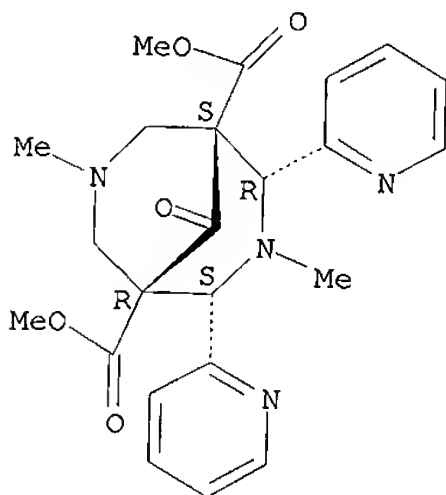
CN 3,7-Diazabicyclo[3.3.1]nonane-1,5-dicarboxylic acid, 3,7-dimethyl-9-oxo-2,4-di-2-pyridinyl-, dimethyl ester, (1R,2S,4R,5S)-rel-, perchlorate (9CI)
(CA INDEX NAME)

CM 1

CRN 42165-92-4

CMF C23 H26 N4 O5

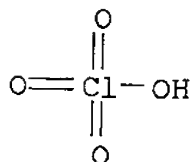
Relative stereochemistry.



CM 2

CRN 7601-90-3

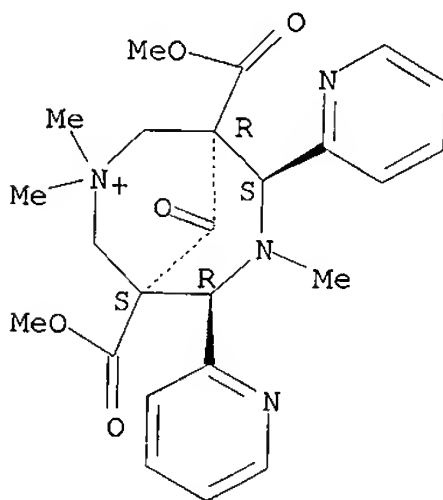
CMF Cl H O4



RN 306994-63-8 HCAPLUS

CN 7-Aza-3-azoniabicyclo[3.3.1]nonane, 1,5-bis(methoxycarbonyl)-3,3,7-trimethyl-9-oxo-6,8-di-2-pyridinyl-, iodide, (1R,5S,6R,8S)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.



● I⁻

RE.CNT 25 THERE ARE 25 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L24 ANSWER 6 OF 22 HCAPLUS COPYRIGHT 2003 ACS on STN
AN 2000:186213 HCAPLUS
DN 132:302489
TI A copper(I) oxygenation precursor in the entatic state: two isomers of a copper(I) compound of a rigid tetradentate ligand
AU Borzel, Heidi; Comba, Peter; Hagen, Karl S.; Katsichtis, Charis; Pritzkow, Hans
CS Anorganisch-Chemisches Institut, Universitat Heidelberg,
Anorganisch-Chemisches Institut, Heidelberg, 69120, Germany
SO Chemistry--A European Journal (2000), 6(5), 914-919
CODEN: CEUJED; ISSN: 0947-6539
PB Wiley-VCH Verlag GmbH

DT Journal

LA English

AB Oxygenation of $[\text{Cu}(\text{L1})(\text{NCCH}_3)]^+$ ($\text{L1} = \text{di-Me } 2,4\text{-bis}(2\text{-pyridinyl})\text{-}3,7\text{-diazabicyclo-[}3.3.1\text{]-nonane-}9\text{-on-}1,5\text{-dicarboxylate}$) leads to a relatively stable $\mu\text{-peroxo-dicopper(II)}$ product. The stability of this type of oxygenation product was shown before to be the result of the square pyramidal geometry of L1 ; preorganization by a dinucleating ligand increases the stability of the $\mu\text{-peroxo-dicopper(II)}$ compd. The structural data presented here indicate that destabilization of the Cu(I) precursor is another important factor. There are two isomers of $[\text{Cu}(\text{L1})(\text{NCCH}_3)]^+$; one is yellow, and the other is red. X-ray crystallog. indicates that one pyridinyl donor is not coordinated in the yellow compd. and that the red compd. is 5-coordinate. In light of the x-ray structure of the metal-free ligand and that of the corresponding Cu(II) compd., it emerges that the ligand cavity is well suited for Cu(II) , whereas the Cu(I) compds. are highly strained. This is supported by $^1\text{H NMR}$ spectra of the Cu(I) species where a fast dynamic process leads to line broadening and by electrochem. data, which indicate that the Cu(II) products are exceptionally stable. Also presented are structural, (Cu(II)), electrochem., and spectroscopic data ($^1\text{H NMR}$, Cu(I)) of $[\text{Cu}(\text{L2})(\text{X})]^{n+}$ with a Me substituent at the $\alpha\text{-C}$ atom of the two coordinated pyridinyl groups ($\text{L2} = \text{di-Me } 2,4\text{-bis}(2\text{-pyridinyl-}6\text{-methyl})\text{-}3,7\text{-diazabicyclo-[}3.3.1\text{]-nonane-}9\text{-on-}1,5\text{-dicarboxylate}$). There are two structural forms of $[\text{CuII}(\text{L2})(\text{X})]^{n+}$ ($\text{X} = \text{NCCH}_3, \text{Cl}$), which depend on the steric demand of the 5th donor X. For both, van der Waals repulsion leads to a destabilization of the Cu(II) products, and this is also evident from an increase in the redn. potential ($\sim 110 \text{ mV}$ vs. -477 mV , Ag/AgNO_3).

IT 264910-16-9P 264910-18-1P 264910-24-9P

264910-28-3P 264910-46-5P 264910-49-8P

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)

(prepn. and crystal and mol. structure)

RN 264910-16-9 HCAPLUS

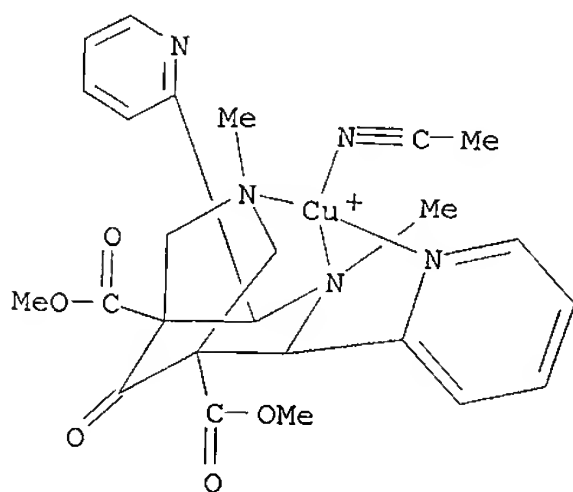
CN Copper(1+), (acetonitrile)[rel-dimethyl (1R,2S,4R,5S)-3,7-dimethyl-9-oxo-2-(2-pyridinyl-.kappa.N)-4-(2-pyridinyl)-3,7-diazabicyclo[3.3.1]nonane-1,5-dicarboxylate-.kappa.N3,.kappa.N7]-, (T-4)-, tetrafluoroborate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 264910-15-8

CMF C25 H29 Cu N5 O5

CCI CCS

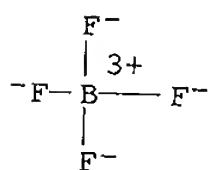


CM 2

CRN 14874-70-5

CMF B F4

CCI CCS



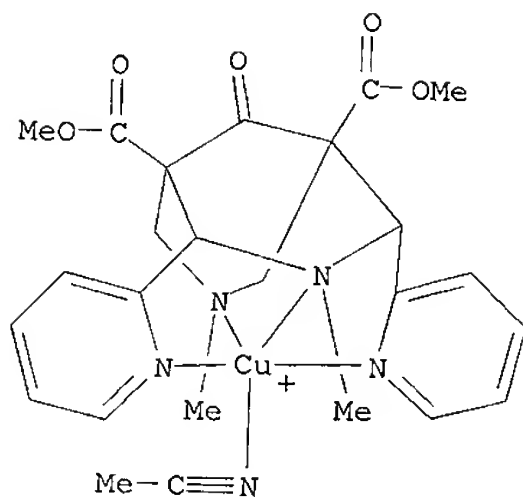
RN 264910-18-1 HCAPLUS
 CN Copper(1+), (acetonitrile)[rel-dimethyl (1R,2S,4R,5S)-3,7-dimethyl-9-oxo-2,4-di(2-pyridinyl-.kappa.N)-3,7-diazabicyclo[3.3.1]nonane-1,5-dicarboxylate-.kappa.N3,.kappa.N7]-, (SP-5-54)-, salt with trifluoromethanesulfonic acid (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 232945-69-6

CMF C25 H29 Cu N5 O5

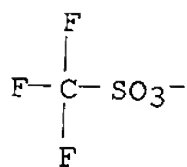
CCI CCS



CM 2

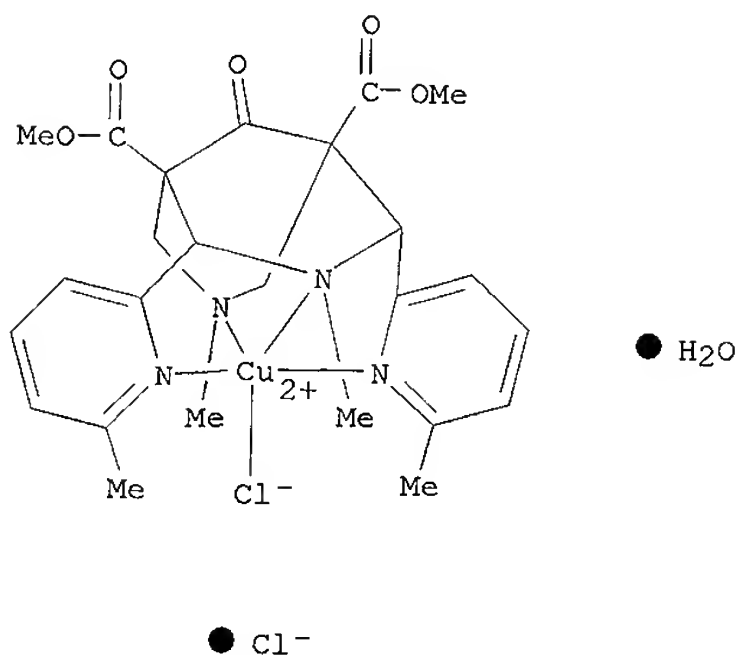
CRN 37181-39-8

CMF C F3 O3 S



RN 264910-24-9 HCAPLUS

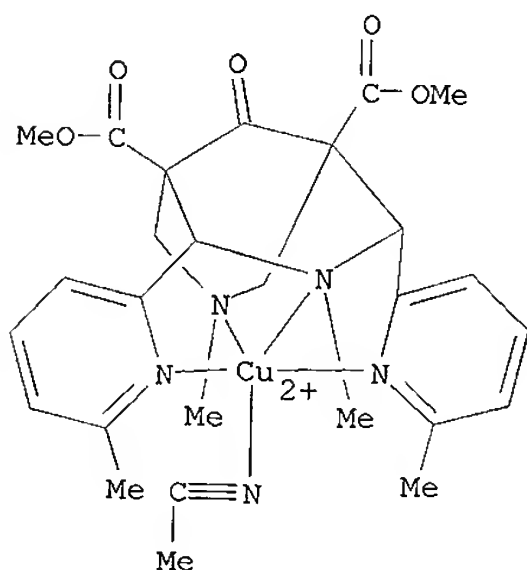
CN Copper(1+), chloro[rel-dimethyl (1R,2S,4R,5S)-3,7-dimethyl-2,4-bis(6-methyl-2-pyridinyl-.kappa.N)-9-oxo-3,7-diazabicyclo[3.3.1]nonane-1,5-dicarboxylate-.kappa.N3,.kappa.N7]-, chloride, monohydrate, (SP-5-45)-(9CI) (CA INDEX NAME)



RN 264910-28-3 HCAPLUS
 CN Copper(2+), (acetonitrile)[rel-dimethyl (1R,2S,4R,5S)-3,7-dimethyl-2,4-bis(6-methyl-2-pyridinyl-.kappa.N)-9-oxo-3,7-diazabicyclo[3.3.1]nonane-1,5-dicarboxylate-.kappa.N3,.kappa.N7]-, (SP-5-54)-, bis[tetrafluoroborate(1-)] (9CI) (CA INDEX NAME)

CM 1

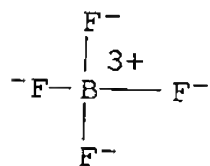
CRN 264910-27-2
 CMF C27 H33 Cu N5 O5
 CCI CCS



CM 2

CRN 14874-70-5

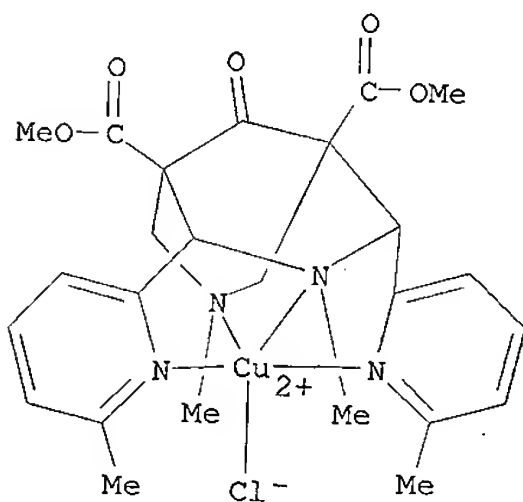
CMF B F4
CCI CCS



RN 264910-46-5 HCAPLUS
CN Copper(1+), chloro[rel-(1R,2S,4R,5S)-dimethyl 3,7-dimethyl-2,4-bis(6-methyl-2-pyridinyl-.kappa.N)-9-oxo-3,7-diazabicyclo[3.3.1]nonane-1,5-dicarboxylate-.kappa.N3,.kappa.N7]-, (SP-5-45)-, chloride, compd. with acetonitrile (1:1), monohydrate (9CI) (CA INDEX NAME)

CM 1

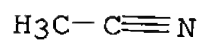
CRN 264910-45-4
CMF C25 H30 Cl Cu N4 O5 . Cl
CCI CCS



● Cl⁻

CM 2

CRN 75-05-8
CMF C2 H3 N

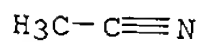


RN 264910-49-8 HCAPLUS
CN Copper(2+), (acetonitrile)[rel-(1R,2S,4R,5S)-dimethyl 3,7-dimethyl-2,4-bis(6-methyl-2-pyridinyl-.kappa.N)-9-oxo-3,7-diazabicyclo[3.3.1]nonane-1,5-

dicarboxylate-.kappa.N3,.kappa.N7]-, (SP-5-54)-, bis[tetrafluoroborate(1-)], compd. with acetonitrile (1:2) (9CI) (CA INDEX NAME)

CM 1

CRN 75-05-8
CMF C2 H3 N

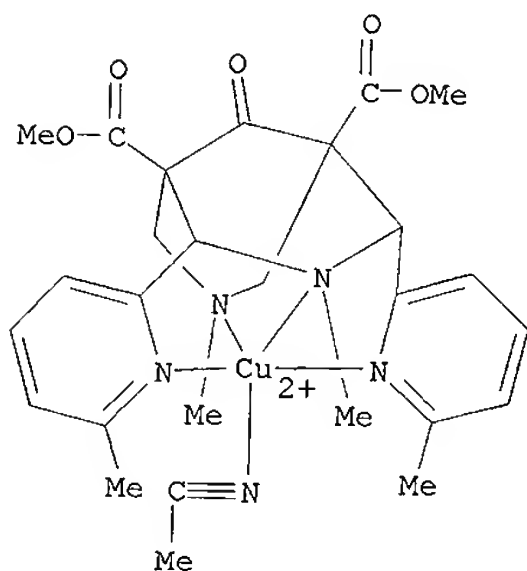


CM 2

CRN 264910-28-3
CMF C27 H33 Cu N5 O5 . 2 B F4

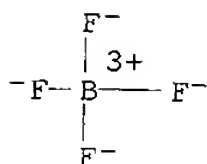
CM 3

CRN 264910-27-2
CMF C27 H33 Cu N5 O5
CCI CCS



CM 4

CRN 14874-70-5
CMF B F4
CCI CCS



IT 264910-21-6P

RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)

RN 264910-21-6 HCAPLUS

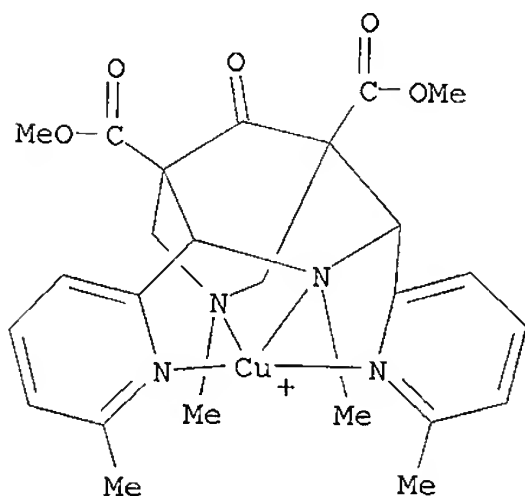
CN Copper(1+), [rel-dimethyl (1R,2S,4R,5S)-3,7-dimethyl-2,4-bis(6-methyl-2-pyridinyl-.kappa.N)-9-oxo-3,7-diazabicyclo[3.3.1]nonane-1,5-dicarboxylate-.kappa.N3,.kappa.N7]-, (T-4)-, salt with trifluoromethanesulfonic acid (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 264910-20-5

CMF C25 H30 Cu N4 O5

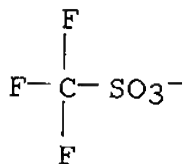
CCI CCS



CM 2

CRN 37181-39-8

CMF C F3 O3 S



RE.CNT 49 THERE ARE 49 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L24 ANSWER 7 OF 22 HCAPLUS COPYRIGHT 2003 ACS on STN

AN 1999:616646 HCAPLUS

DN 132:64248

TI Synthesis, X-ray analysis and spectroscopic characterization of the hemiaminal cyclization product from 2,4-dipyridine substituted 3,7-diazabicyclo[3.3.1]nonanone 1,5-diesters

AU Kuhl, Ulrich; Cambareri, Antonella; Sauber, Christian; Sorgel, Fritz; Hartmann, Rudolf; Euler, Harald; Kirfel, Armin; Holzgrabe, Ulrike

CS Am Hubland, Institut fur Pharmazie und Lebensmittelchemie, Universitat
Wurzburg, Wurzburg, D-97074, Germany

SO Journal of the Chemical Society, Perkin Transactions 2: Physical Organic
Chemistry (1999), (10), 2083-2088
CODEN: JCPKBH; ISSN: 0300-9580

PB Royal Society of Chemistry

DT Journal

LA English

AB The 2,4-dipyridine substituted 3,7-dimethyl-3,7-diazabicyclo[3.3.1]nonan-9-
one 1,5-diester (HZ2) is characterized by a high analgesic potency. The
attempt to form ammonium salts of HZ2 or to N-demethylate position 7
resulted in an unexpected hemiaminal cyclization product. The structure
was elucidated by an X-ray anal.; the ¹H- and ¹³C-NMR spectra could be
fully assigned by means of H,H-COSY, Grad-HSQC-EA and ACCORD-HMBC expts.
The MS spectra of the hemiaminal exhibited a ring opening. Interestingly,
ESI-MS/MS expts. of HZ2 in aq. soln. showed the formation of a hydrated
product. The fragmentation pathways of HZ2 and the hydrated product are
rather different indicating the formation of a carboxylate.

IT 253304-59-5P
RL: PRP (Properties); SPN (Synthetic preparation); PREP
(Preparation)
(prepn., X-ray anal. and spectroscopic characterization of the
hemiaminal cyclization product from 2,4-dipyridine substituted
3,7-diazabicyclo[3.3.1]nonanone 1,5-diester)

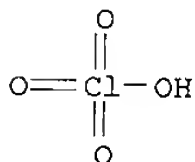
RN 253304-59-5 HCAPLUS

CN 10,4-(Iminomethano)-1H-pyrido[3,4-b]indolizin-5-ium, 2,3,4,4a,10,10a-
hexahydro-4a-hydroxy-4,10a-bis(methoxycarbonyl)-2,11-dimethyl-12-(2-
pyridinyl)-, (4R,4aS,10S,10aS,12S)-rel-, perchlorate (salt),
monoperchlorate, monohydrate (9CI) (CA INDEX NAME)

CM 1

CRN 7601-90-3
CMF Cl H O4

Claim 20?



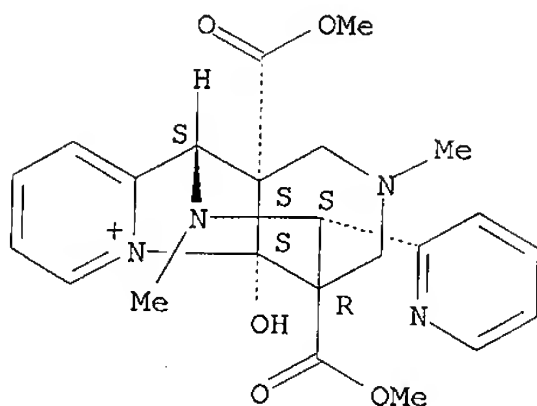
CM 2

CRN 253304-58-4
CMF C23 H27 N4 O5 . Cl O4

CM 3

CRN 253304-57-3
CMF C23 H27 N4 O5

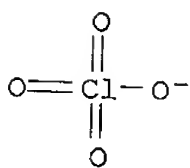
Relative stereochemistry.



CM 4

CRN 14797-73-0

CMF C1 O4



IT 253304-61-9P 253304-62-0P

RL: SPN (Synthetic preparation); PREP (Preparation)

(prepn., X-ray anal. and spectroscopic characterization of the hemiaminal cyclization product from 2,4-dipyridine substituted 3,7-diazabicyclo[3.3.1]nonanone 1,5-diester)

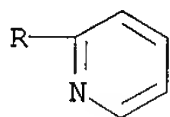
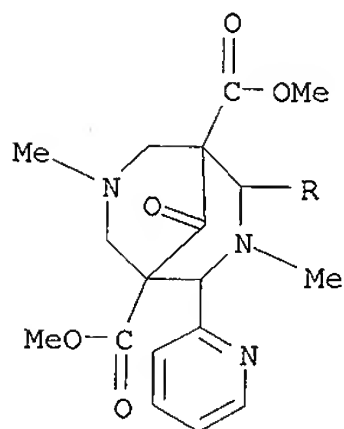
RN 253304-61-9 HCAPLUS

CN 3,7-Diazabicyclo[3.3.1]nonane-1,5-dicarboxylic acid, 3,7-dimethyl-9-oxo-2,4-di-2-pyridinyl-, dimethyl ester, ethanedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

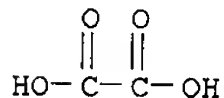
CRN 253304-60-8

CMF C23 H26 N4 O5



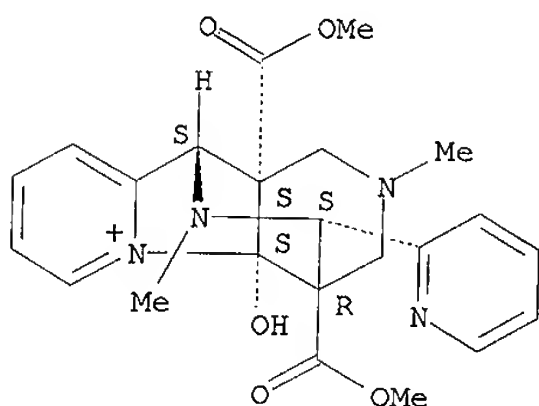
CM 2

CRN 144-62-7
CMF C2 H2 O4



RN 253304-62-0 HCAPLUS
CN 10,4-(Iminomethano)-1H-pyrido[3,4-b]indolizin-5-ium, 2,3,4,4a,10,10a-hexahydro-4a-hydroxy-4,10a-bis(methoxycarbonyl)-2,11-dimethyl-12-(2-pyridinyl)-, chloride, monohydrochloride, (4R,4aS,10S,10aS,12S)-rel- (9CI)
(CA INDEX NAME)

Relative stereochemistry.



● Cl⁻

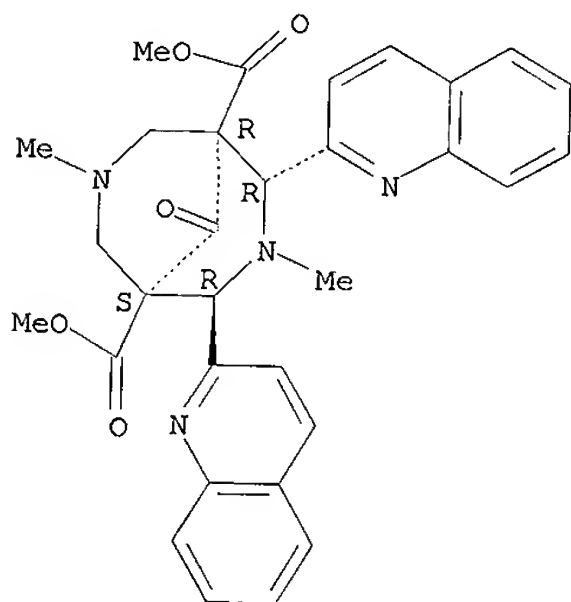
● HCl

RE.CNT 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

- L24 ANSWER 8 OF 22 HCAPLUS COPYRIGHT 2003 ACS on STN
AN 1999:563248 HCAPLUS
DN 131:350972
TI Conformational and configurational behavior of .kappa.-agonistic
3,7-diazabicyclo[3.3.1]nonan-9-ones-synthesis, nuclear magnetic resonance
studies and semiempirical PM3 calculations
AU Siener, Tom; Holzgrabe, Ulrike; Drosihn, Susanne; Brandt, Wolfgang
CS Am Hubland, Institut fur Pharmazie und Lebensmittelchemie, Universitat
Wurzburg, Wurzburg, D-97074, Germany
SO Journal of the Chemical Society, Perkin Transactions 2: Physical Organic
Chemistry (1999), (9), 1827-1834
CODEN: JCPKBH; ISSN: 0300-9580
PB Royal Society of Chemistry
DT Journal
LA English
AB 2,4-Diaryl substituted 3,7-diazabicyclo[3.3.1]nonan-9-one 1,5-diesters
were found to have a high affinity for .kappa.-opioid receptors. To
develop highly potent analgesics, the purpose of this study was the
synthesis and the structural characterization of the novel
2,4-bis(4-nitrophenyl), 2,4-bis(3-nitrophenyl), 2,4-bis(4-quinolyl),
2,4-bis(2-quinolyl), 2,4-bis(1-naphthyl) and 2,4-bis(2-naphthyl)
substituted 3,7-diazabicyclo[3.3.1]nonan-9-one 1,5-diesters by means of
NMR spectroscopy and mol. modeling. Several derivs. undergo trans-cis
isomerization of the arom. rings linked to the rigid skeleton whereas
others show rotational isomerization. Semiempirical quantum-chem. PM3
calcns. were performed to analyze the thermodyn. stability of the isomers
as well as the mechanism of the trans-cis or cis-trans isomerization.
IT 250339-63-0P
RL: PEP (Physical, engineering or chemical process); PRP (Properties);
SPN (Synthetic preparation); PREP (Preparation); PROC
(Process)

(synthesis, NMR studies and semiempirical PM3 calcns. of of
 .kappa.-agonistic 3,7-diazabicyclo[3.3.1]nonan-9-ones)
 RN 250339-63-0 HCAPLUS
 CN 3,7-Diazabicyclo[3.3.1]nonane-1,5-dicarboxylic acid, 3,7-dimethyl-9-oxo-
 2,4-di-2-quinolinyl-, dimethyl ester, (1R,2R,4R,5S)-rel- (9CI) (CA INDEX
 NAME)

Relative stereochemistry.



RE.CNT 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

- L24 ANSWER 9 OF 22 HCAPLUS COPYRIGHT 2003 ACS on STN
 AN 1999:382574 HCAPLUS
 DN 131:124515
 TI Stabilization of copper dioxygen compounds: design, synthesis, and
 characterization
 AU Borzel, Heidi; Comba, Peter; Katsichtis, Charis; Kiefer, Wolfgang; Lienke,
 Achim; Nagel, Volker; Pritzkow, Hans
 CS Universitat Heidelberg, Anorganisch-Chemisches Institut, Heidelberg,
 D-69120, Germany
 SO Chemistry--A European Journal (1999), 5(6), 1716-1721
 CODEN: CEUJED; ISSN: 0947-6539
 PB Wiley-VCH Verlag GmbH
 DT Journal
 LA English
 AB Oxygenation in acetonitrile of the copper(I) complex of the rigid
 tetradentate, substituted bispidine ligand L1 with a diamine-bis-pyridinyl
 donor set (L1 = di-Me N,N'-dimethyl-2,4-bis(2-pyridinyl)-3,7-
 diazabicyclo[3.3.1]nonane-9-diol(or 9-one)-1,5-dicarboxylate) produces an
 end-on (.mu.-peroxo)dicopper(II) compd. that is stable in soln. up to 250
 K. The spectroscopic characterization of this species (UV/visible and
 Raman spectroscopy) and an x-ray structural anal. of the corresponding
 mononuclear copper(II) compd. [Cu(L1)Cl]+ indicate that the deep purple
 oxygenation product has two distorted square pyramidal copper(II)
 chromophores linked by a .mu.-peroxo bridge. Mol. mechanics calcns. were
 used to interpret the relative stability of the copper dioxygen product
 [{Cu(L1)}2O2]2+ and to design the dinucleating ligand L2, based on two L1
 binding sites, linked by a -CH2CH2- bridge. The corresponding deep purple

copper dioxygen product $[Cu_2(L_2)(O_2)]^{2+}$ has spectroscopic characteristics (UV/visible and Raman spectra) that are similar but not identical to those of $[Cu(L_1)]_2O_2^{2+}$; this (μ -peroxo)dicopper(II) compd. is stable at ambient temp. ($t_{1/2}(298\text{ K}) = 50\text{ min}$).

IT 232945-68-5P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP

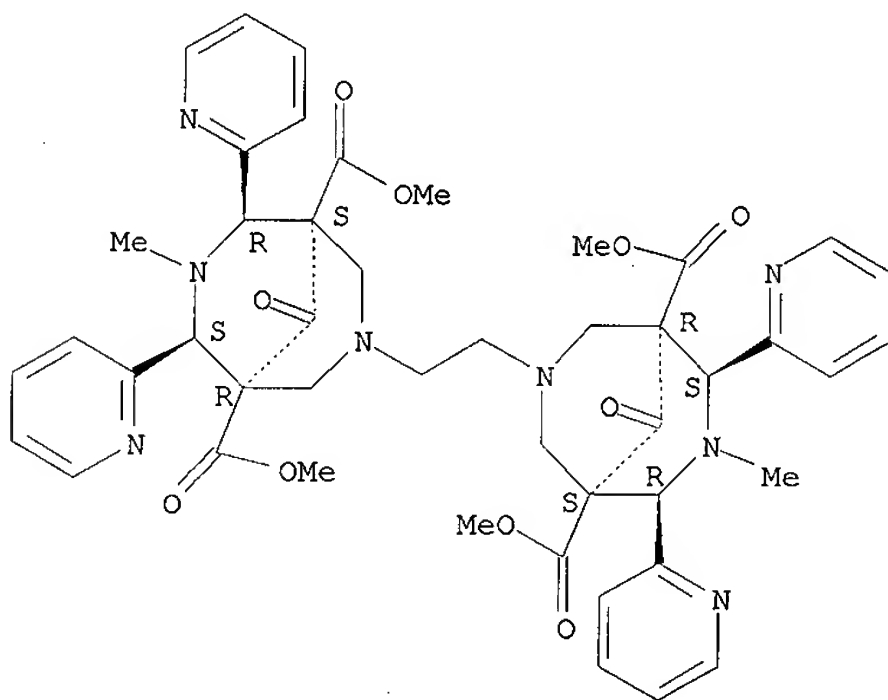
(Preparation); RACT (Reactant or reagent)

(for prepn. of copper di(pyridinyl)diazabicyclononanedicarboxylate mononuclear and peroxo-bridged dinuclear complexes)

RN 232945-68-5 HCAPLUS

CN 3,7-Diazabicyclo[3.3.1]nonane-1,5-dicarboxylic acid, 3,3'-(1,2-ethanediyl)bis[7-methyl-9-oxo-6,8-di-2-pyridinyl-, tetramethyl ester, (1R,1'R,2S,2'S,4R,4'R,5S,5'S)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.



IT 232945-75-4P

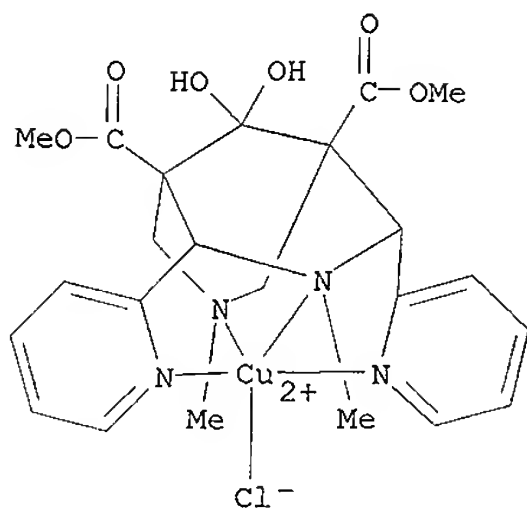
RL: PRP (Properties); SPN (Synthetic preparation); PREP

(Preparation)

(prepn. and crystal structure)

RN 232945-75-4 HCAPLUS

CN Copper(1+), chloro[rel-dimethyl (1R,2S,4R,5S)-9,9-dihydroxy-3,7-dimethyl-2,4-di(2-pyridinyl-.kappa.N)-3,7-diazabicyclo[3.3.1]nonane-1,5-dicarboxylate-.kappa.N3,.kappa.N7]-, chloride, (SP-5-54)- (9CI) (CA INDEX NAME)



● Cl⁻

IT 232945-70-9P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent) (prepn. and oxygenation)

RN 232945-70-9 HCAPLUS

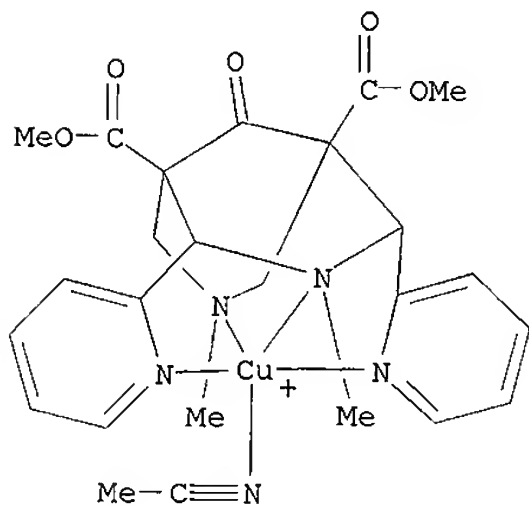
CN Copper(1+), (acetonitrile)[rel-dimethyl (1R,2S,4R,5S)-3,7-dimethyl-9-oxo-2,4-di(2-pyridinyl-.kappa.N)-3,7-diazabicyclo[3.3.1]nonane-1,5-dicarboxylate-.kappa.N3,.kappa.N7]-, (SP-5-54)-, tetrafluoroborate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 232945-69-6

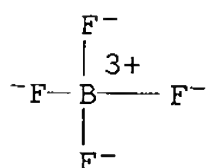
CMF C25 H29 Cu N5 O5

CCI CCS



CM 2

CRN 14874-70-5
CMF B F4
CCI CCS



IT 232945-72-1P 233604-20-1P

RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)

RN 232945-72-1 HCAPLUS

CN Copper(2+), bis(acetonitrile)[.mu.-[rel-tetramethyl
(1R,1'R,5S,5'S,6R,6'R,8S,8'S)-3,3'-(1,2-ethanediyl)bis[7-methyl-9-oxo-6,8-
di(2-pyridinyl-.kappa.N)-3,7-diazabicyclo[3.3.1]nonane-1,5-dicarboxylate-
.kappa.N3,.kappa.N7]]]di-, stereoisomer, salt with
trifluoromethanesulfonic acid (1:2) (9CI) (CA INDEX NAME)

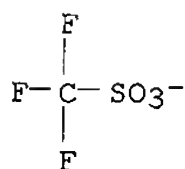
CM 1

CRN 232945-71-0
CMF C50 H56 Cu2 N10 O10
CCI CCS

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 37181-39-8
CMF C F3 O3 S



RN 233604-20-1 HCAPLUS

CN Copper(2+), bis(acetonitrile)[.mu.-[rel-tetramethyl
(1R,1'R,5S,5'S,6R,6'R,8S,8'S)-3,3'-(1,2-ethanediyl)bis[7-methyl-9-oxo-6,8-
di(2-pyridinyl-.kappa.N)-3,7-diazabicyclo[3.3.1]nonane-1,5-
dicarboxylate]]]di-, stereoisomer, bis[tetrafluoroborate(1-)] (9CI) (CA
INDEX NAME)

CM 1

CRN 232945-71-0
CMF C50 H56 Cu2 N10 O10
CCI CCS

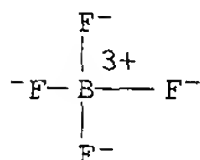
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 14874-70-5

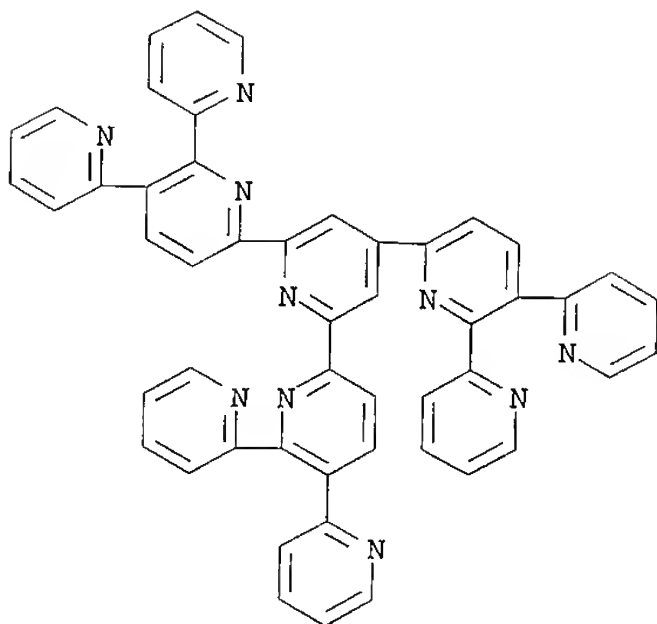
CMF B F4

CCI CCS



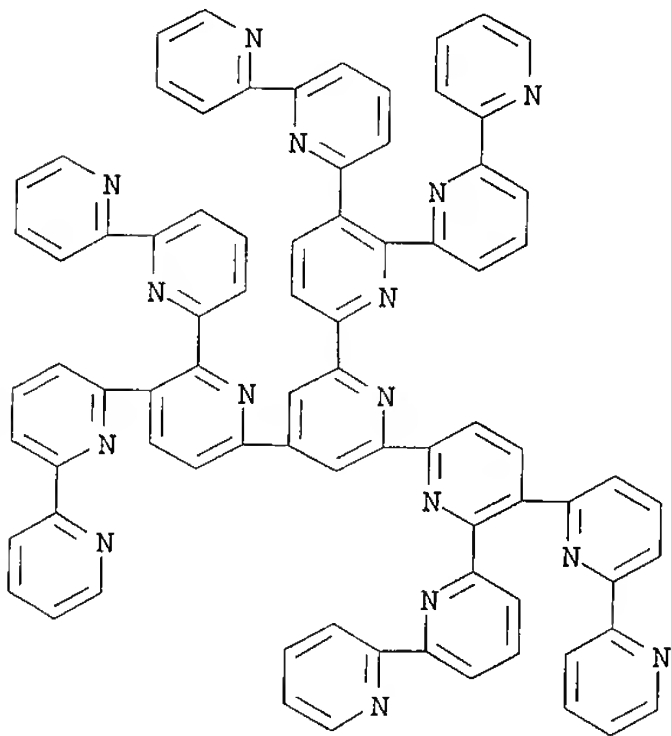
RE.CNT 43 THERE ARE 43 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L24 ANSWER 10 OF 22 HCAPLUS COPYRIGHT 2003 ACS on STN
AN 1998:765049 HCAPLUS
DN 130:95461
TI The new and simple 'LEGO' system: its application to the synthesis of
superbranched oligopyridines
AU Pabst, Gunther R.; Sauer, Jorgen
CS Institut fur Organische Chemie der Universitat Regensburg, Regensburg,
D-93040, Germany
SO Tetrahedron Letters (1998), 39(48), 8817-8820
CODEN: TELEAY; ISSN: 0040-4039
PB Elsevier Science Ltd.
DT Journal
LA English
AB The condensation of pyridine-2,4,6-tricarboxytrisamidrazone with
1,2-dicarbonyl compds. leads to trisubstituted 1,2,4-triazines. These
1,2,4-triazines can be easily transformed to superbranched pyridines by
[4+2] cycloaddn. with norborna-2,5-diene, followed by [4+2]
cycloreversions of nitrogen and cyclopentadiene. This reaction sequence
offers a new, simple and general access to superbranched oligopyridines.
IT 219567-24-5P 219567-25-6P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of superbranched oligopyridines)
RN 219567-24-5 HCAPLUS
CN 2,2':6',2'':4'',2'':5''',2''''-Quinquepyridine, 3',6'''-di-2-pyridinyl-
6''-[2,2':3',2''-terpyridin]-6''-yl- (9CI) (CA INDEX NAME)



RN 219567-25-6 HCAPLUS

CN 2,2':6',2'':6'',2''':4''',2''':5''',2''':6''',2''':6'''-Septipyridine,
3'',6''''-bis([2,2'-bipyridin]-6-yl)-6''''-[2,2':6',2'':3'',2''':6'',2''':6'''-
quinquepyridin]-6''-yl- (9CI) (CA INDEX NAME)



RE.CNT 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

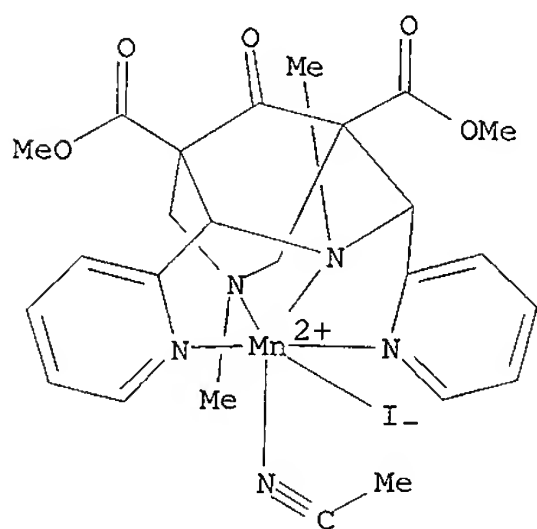
L24 ANSWER 11 OF 22 HCAPLUS COPYRIGHT 2003 ACS on STN

AN 1998:757601 HCAPLUS

DN 130:133109

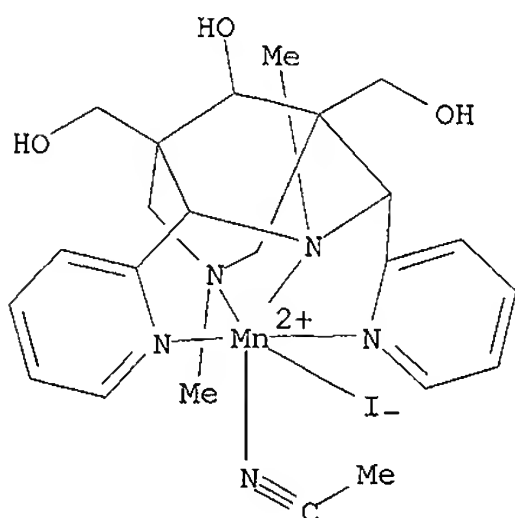
TI Synthesis and characterization of manganese(II) compounds with
tetradentate ligands based on the bispidine backbone

- AU Comba, Peter; Kanellakopulos, Basil; Katsichtis, Charis; Lienke, Achim; Pritzkow, Hans; Rominger, Frank
- CS Anorganisch-Chemisches Institut, Universitat Heidelberg, Heidelberg, 69120, Germany
- SO Journal of the Chemical Society, Dalton Transactions: Inorganic Chemistry (1998), (23), 3997-4002
CODEN: JCDBTBI; ISSN: 0300-9246
- PB Royal Society of Chemistry
- DT Journal
- LA English
- AB Reaction of the tetradentate ligand di-Me 3,7-dimethyl-9-oxo-2,4-bis(2-pyridyl)-3,7-diazabicyclo[3.3.1]nonane-1,5-dicarboxylate (L1) with Mn(II) chloride or iodide in MeOH yielded [MnL1Cl2] and [MnL1I2], resp. Reaction of L1 with Ag(I) triflate Ag(O3SCF3) converted these compds. into [MnL1(O3SCF3)2]. Redn. of L1 with NaBH4 in MeOH and LiAlH4 in THF led to the triol 1,5-bis(hydroxymethylene)-3,7-dimethyl-2,4-bis(2-pyridyl)-3,7-diazabicyclo[3.3.1]nonan-9-ol (L2); the redn. is stereoselective and yields the syn isomer. Complexation of Mn(II) chloride and iodide with L2 produced [MnL2Cl2] and [MnL2I2] which have a higher thermal stability than [MnL1X2]. [MnL1Cl2], [MnL1I2], [MnL1(O3SCF3)2], [MnL2Cl2] and [MnL2I2] are characterized spectroscopically, electrochem. and by their magnetic, conductometric, thermal and structural properties (x-ray analyses of [MnL1Cl2] and [MnL2Cl2]).
- IT 219957-10-5P 219957-12-7P 219957-14-9P
RL: SPN (Synthetic preparation); PREP (Preparation)
(formation in soln.)
- RN 219957-10-5 HCAPLUS
- CN Manganese(1+), (acetonitrile)[dimethyl 3,7-dimethyl-9-oxo-6,8-di(2-pyridinyl)-.kappa.N)-3,7-diazabicyclo[3.3.1]nonane-1,5-dicarboxylate-.kappa.N3,.kappa.N7]iodo-, iodide (9CI) (CA INDEX NAME)



● I⁻

- RN 219957-12-7 HCAPLUS
- CN Manganese(1+), (acetonitrile)[9-hydroxy-3,7-dimethyl-2,4-di(2-pyridinyl)-.kappa.N)-3,7-diazabicyclo[3.3.1]nonane-1,5-dimethanol-.kappa.N3,.kappa.N7]iodo-, iodide (9CI) (CA INDEX NAME)

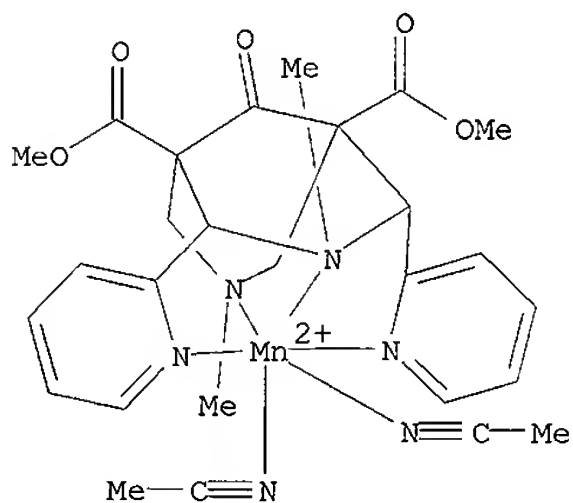


● I⁻

RN 219957-14-9 HCAPLUS
 CN Manganese(2+), bis(acetonitrile)[dimethyl (3-endo,7-endo)-3,7-dimethyl-9-oxo-6,8-di(2-pyridinyl-.kappa.N)-3,7-diazabicyclo[3.3.1]nonane-1,5-dicarboxylate-.kappa.N3,.kappa.N7]-, (OC-6-54)-, salt with trifluoromethanesulfonic acid (1:2) (9CI) (CA INDEX NAME)

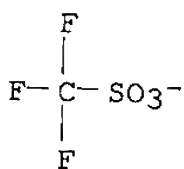
CM 1

CRN 219957-13-8
 CMF C27 H32 Mn N6 O5
 CCI CCS



CM 2

CRN 37181-39-8
 CMF C F3 O3 S



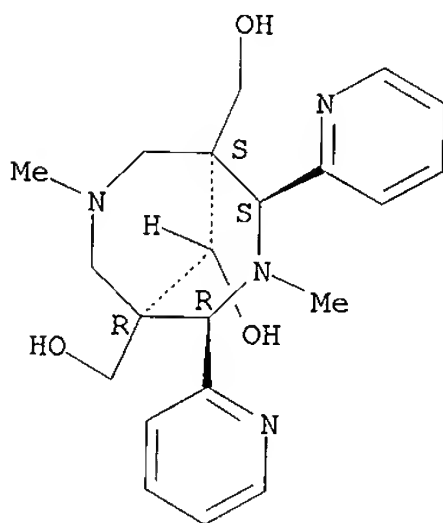
IT 219957-01-4P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and complexation with manganese halides)

RN 219957-01-4 HCAPLUS

CN 3,7-Diazabicyclo[3.3.1]nonane-1,5-dimethanol, 9-hydroxy-3,7-dimethyl-2,4-di-2-pyridinyl-, (2-endo,4-endo,9-syn)- (9CI) (CA INDEX NAME)

Relative stereochemistry.

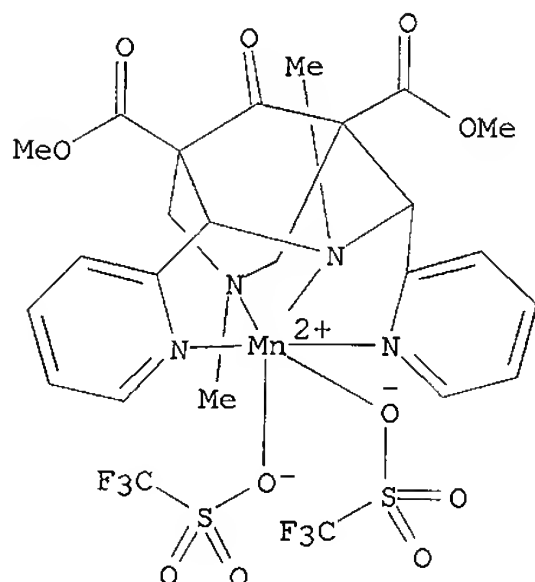


IT 219957-06-9P

RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)

RN 219957-06-9 HCAPLUS

CN Manganese, [dimethyl (3-endo,7-endo)-3,7-dimethyl-9-oxo-6,8-di(2-pyridinyl-.kappa.N)-3,7-diazabicyclo[3.3.1]nonane-1,5-dicarboxylate-.kappa.N3,.kappa.N7]bis(trifluoromethanesulfonato-.kappa.O)-, (OC-6-54)- (9CI) (CA INDEX NAME)



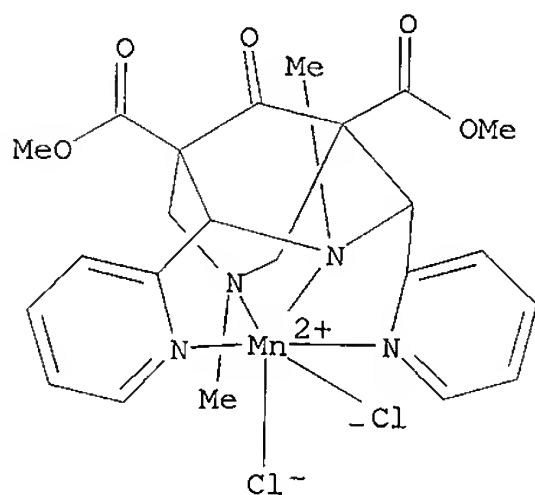
IT 219957-02-5P 219957-07-0P

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)

(prepn., crystal structure, solid-state and soln. properties)

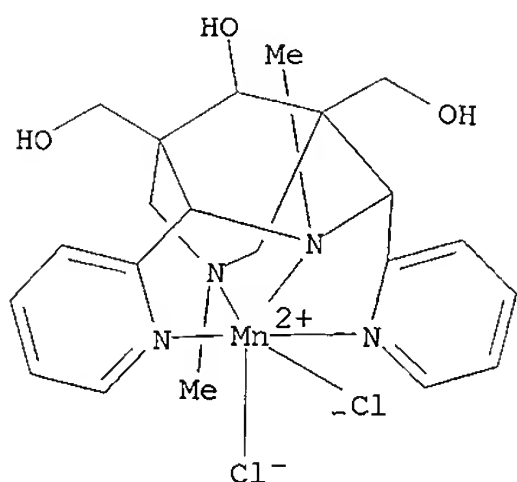
RN 219957-02-5 HCAPLUS

CN Manganese, dichloro[dimethyl (3-endo,7-endo)-3,7-dimethyl-9-oxo-6,8-di(2-pyridinyl-.kappa.N)-3,7-diazabicyclo[3.3.1]nonane-1,5-dicarboxylate-.kappa.N3,.kappa.N7]-, (OC-6-54)- (9CI) (CA INDEX NAME)



RN 219957-07-0 HCAPLUS

CN Manganese, dichloro[9-hydroxy-3,7-dimethyl-2,4-di(2-pyridinyl-.kappa.N)-3,7-diazabicyclo[3.3.1]nonane-1,5-dimethanol-.kappa.N3,.kappa.N7]-, hydrate (2:1), stereoisomer (9CI) (CA INDEX NAME)



● 1/2 H₂O

IT 219957-03-6P 219957-08-1P
 RL: PRP (Properties); SPN (Synthetic preparation); PREP
 (Preparation)
 (prepn., solid-state and soln. properties)
 RN 219957-03-6 HCAPLUS
 CN Manganese, [dimethyl (3-endo,7-endo)-3,7-dimethyl-9-oxo-6,8-di(2-pyridinyl-
 .kappa.N)-3,7-diazabicyclo[3.3.1]nonane-1,5-dicarboxylate-
 .kappa.N3,.kappa.N7]diiodo-, (OC-6-54)- (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

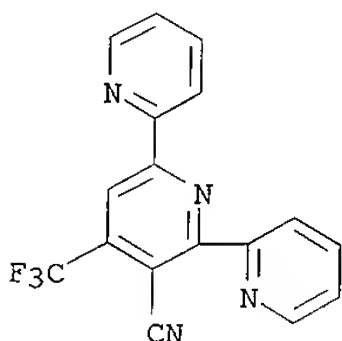
RN 219957-08-1 HCAPLUS
 CN Manganese, [rel-(1R,2R,3-endo,4S,5S,7-endo,9-syn)-9-hydroxy-3,7-dimethyl-
 2,4-di(2-pyridinyl-.kappa.N)-3,7-diazabicyclo[3.3.1]nonane-1,5-dimethanol-
 .kappa.N3,.kappa.N7]diiodo-, (OC-6-54)- (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

RE.CNT 28 THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

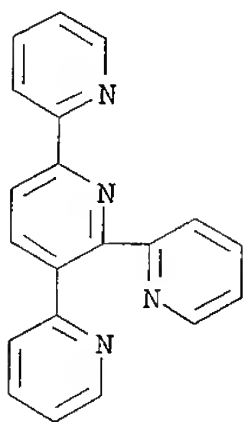
L24 ANSWER 12 OF 22 HCAPLUS COPYRIGHT 2003 ACS on STN
 AN 1998:645924 HCAPLUS
 DN 129:302540
 TI A new expedient route to 2,6-diaryl-3-cyano-4-(trifluoromethyl)pyridines
 AU Yamaguchi, Yoshihiro; Katsuyama, Isamu; Funabiki, Kazumasa; Matsui,
 Masaki; Shibata, Katsuyoshi
 CS Department of Chemistry, Faculty of Engineering, Gifu University, Gifu,
 501-1193, Japan
 SO Journal of Heterocyclic Chemistry (1998), 35(4), 805-810
 CODEN: JHTCAD; ISSN: 0022-152X
 PB HeteroCorporation
 DT Journal
 LA English
 OS CASREACT 129:302540
 AB 1-Aryl-4,4,4-trifluoro-1,3-butanediones react with .beta.-amino-.beta.-
 arylacrylonitriles, readily available from acetonitrile and aryl nitriles
 in the presence of potassium t-butoxide, to afford the corresponding
 2,6-diaryl-3-cyano-4-(trifluoromethyl)pyridines in moderate to excellent

yields.
 IT 214546-21-1P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (prepn. of)
 RN 214546-21-1 HCAPLUS
 CN [2,2':6',2''-Terpyridine]-3'-carbonitrile, 4'-(trifluoromethyl)- (9CI)
 (CA INDEX NAME)

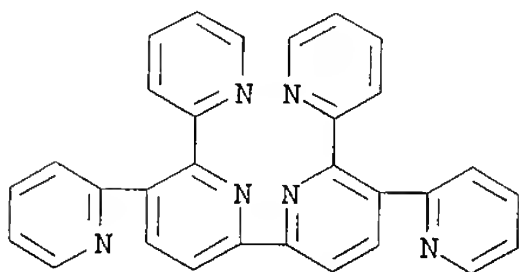


RE.CNT 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

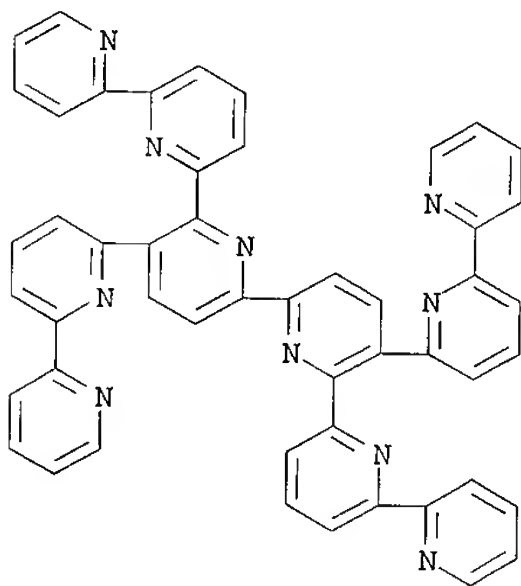
L24 ANSWER 13 OF 22 HCAPLUS COPYRIGHT 2003 ACS on STN
 AN 1998:591586 HCAPLUS
 DN 129:275821
 TI A new and simple "LEGO" system for the synthesis of branched
 oligopyridines
 AU Pabst, Gunther R.; Schmid, Konrad; Sauer, Jurgen
 CS Inst. Organische Chemie, Universitat Regensburg, Regensburg, D-93040,
 Germany.
 SO Tetrahedron Letters (1998), 39(37), 6691-6694
 CODEN: TELEAY; ISSN: 0040-4039
 PB Elsevier Science Ltd.
 DT Journal
 LA English
 AB The condensation of carboxamidrazones with 1,2-dicarbonyl compds. is the
 best method for the synthesis of alkyl-, aryl-, or heteroaryl-substituted
 1,2,4-triazines. These 1,2,4-triazines can be easily transformed into
 pyridines by [4+2] cycloaddn. with bicyclo[2.2.1]hepta-2,5-diene, followed
 by [4+2] cycloreversion of nitrogen and cyclopentadiene. This reaction
 sequence offers a new, simple and general access to branched
 oligopyridines.
 IT 213838-02-9P 213838-03-0P 213838-04-1P
 213838-05-2P 213838-06-3P 213838-07-4P
 213838-08-5P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (prepn. of)
 RN 213838-02-9 HCAPLUS
 CN 2,2':3',2''-Terpyridine, 6'-(2-pyridinyl)- (9CI) (CA INDEX NAME)



RN 213838-03-0 HCAPLUS
CN 2,2':6',2'':5'',2'''-Quaterpyridine, 3',6''-di-2-pyridinyl- (9CI) (CA INDEX NAME)

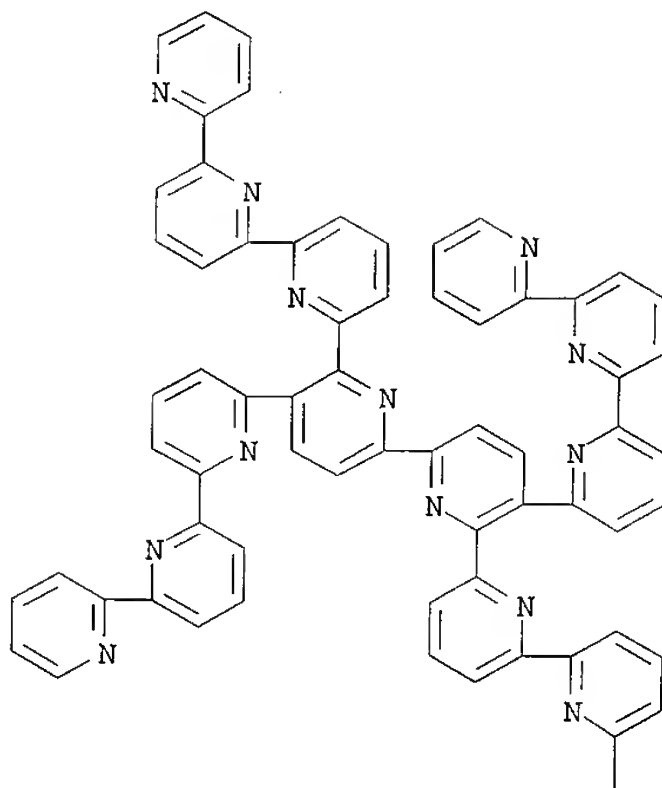


RN 213838-04-1 HCAPLUS
CN 2,2':6',2'':6''',2''':5''',2''':6''''-Sexipyridine, 3'',6''''-bis([2,2'-bipyridin]-6-yl)- (9CI) (CA INDEX NAME)

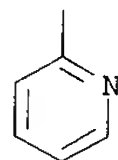


RN 213838-05-2 HCAPLUS
CN 2,2':6',2'':6''',2''':5''',2''':6''''-Octipyridine, 3''',6''''-bis([2,2':6',2''-terpyridin]-6-yl)- (9CI) (CA INDEX NAME)

PAGE 1-A

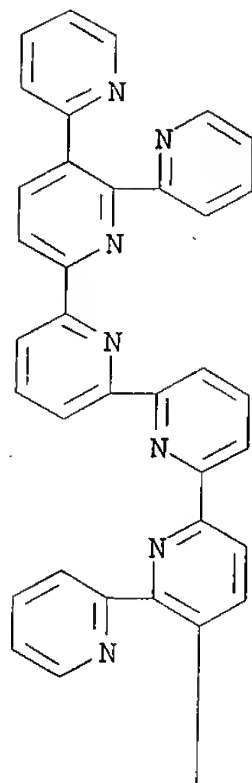


PAGE 2-A

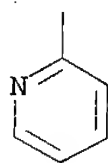


RN 213838-06-3 HCAPLUS
CN 2,2':6',2'':6'':2''':5''',2''''-Quinquepyridine, 3',6'''-di-2-pyridinyl-
(9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 2-A



RE.CNT 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L24 ANSWER 14 OF 22 HCAPLUS COPYRIGHT 2003 ACS on STN
AN 1997:135687 HCAPLUS
DN 126:219919
TI The design of a new type of very rigid tetradentate ligand
AU Comba, Peter; Nuber, Bernhard; Ramlow, Anne
CS Anorg.-Chem. Inst. Univ., Heidelberg, 69120, Germany
SO Journal of the Chemical Society, Dalton Transactions: Inorganic Chemistry
(1997), (3), 347-352
CODEN: JCDTBI; ISSN: 0300-9246
PB Royal Society of Chemistry
DT Journal
LA English
AB Mol. mechanics calcns. were used to compute the structural properties of a
new type of very rigid tetradentate ligand for tetrahedral coordination
geometries. The calcns. indicate that the pendant arms of the
disubstituted bispidine (3,7-diazabicyclo[3.3.1]nonane) backbone need to
form six-membered chelate rings with the metal to allow a distorted

tetrahedral geometry. Smaller rings lead to five-(trigonal bipyramidal) or six-coordinate (octahedral) transition-metal compds. The quality of these predictions is supported by the exptl. detd. structure of a Co(II) compd. of the ligand with coordinated pyridine substituents (five-membered chelate rings) and an addnl. bidentate nitrate ligand. Comparison of the computed structures with the crystal structure of the Co(II) compd. and with that of a ligand with Me-protected Ph substituents supports the rigidity of the bispidine backbone and indicates that rotation of coordinating side chains around a C-C single bond is the only flexibility in these ligands.

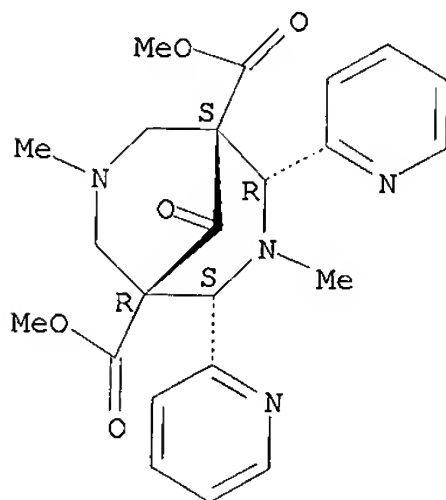
IT 42165-92-4P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent) (prepn. and complexation with cobalt)

RN 42165-92-4 HCAPLUS

CN 3,7-Diazabicyclo[3.3.1]nonane-1,5-dicarboxylic acid, 3,7-dimethyl-9-oxo-2,4-di-2-pyridinyl-, dimethyl ester, (1R,2S,4R,5S)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.



IT 188033-36-5P

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)

(prepn. and crystal structure of)

RN 188033-36-5 HCAPLUS

CN Cobalt(1+), [dimethyl 3,7-dimethyl-9-oxo-2,4-di(2-pyridinyl-.kappa.N)-3,7-diazabicyclo[3.3.1]nonane-1,5-dicarboxylate-.kappa.N3,.kappa.N7] (nitrate-.kappa.O,.kappa.O')-, (OC-6-43)-, nitrate, monohydrate (9CI) (CA INDEX NAME)

CM 1

CRN 188033-34-3

CMF C23 H26 Co N5 O8 . N O3

CM 2

CRN 188033-33-2

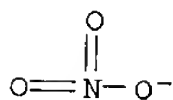
CMF C23 H26 Co N5 O8

CCI CCS

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 3

CRN 14797-55-8
CMF N O3



IT 188033-34-3P

RL: PRP (Properties); SPN (Synthetic preparation); PREP
(Preparation)
(prepn. and mol. structure)

RN 188033-34-3 HCAPLUS

CN Cobalt(1+), [dimethyl 3,7-dimethyl-9-oxo-2,4-di(2-pyridinyl-.kappa.N)-3,7-diazabicyclo[3.3.1]nonane-1,5-dicarboxylate-.kappa.N3,.kappa.N7] (nitrate-.kappa.O,.kappa.O')-, (OC-6-43)-, nitrate (9CI) (CA INDEX NAME)

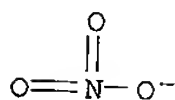
CM 1

CRN 188033-33-2
CMF C23 H26 Co N5 O8
CCI CCS

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 14797-55-8
CMF N O3

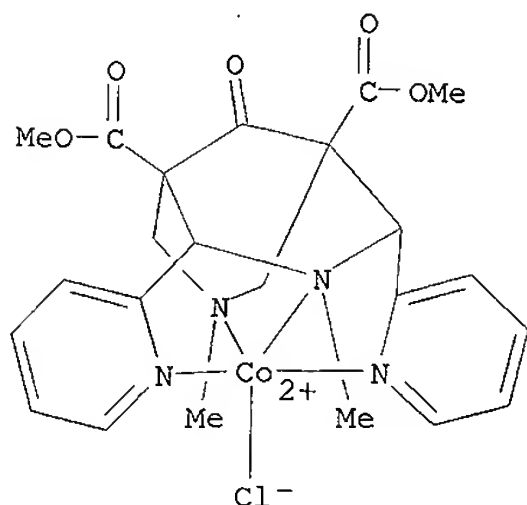


IT 188033-35-4P

RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)

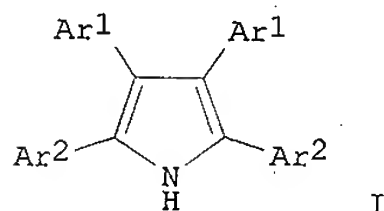
RN 188033-35-4 HCAPLUS

CN Cobalt(1+), chloro[dimethyl 3,7-dimethyl-9-oxo-2,4-di(2-pyridinyl-.kappa.N)-3,7-diazabicyclo[3.3.1]nonane-1,5-dicarboxylate-.kappa.N3,.kappa.N7]-, chloride, (TB-5-22)- (9CI) (CA INDEX NAME)



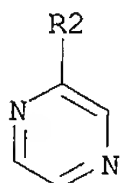
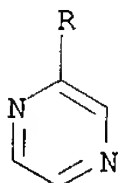
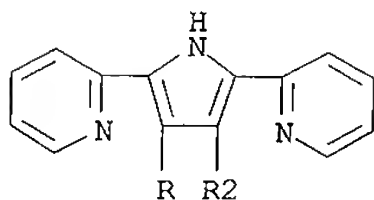
● Cl⁻

L24 ANSWER 15 OF 22 HCAPLUS COPYRIGHT 2003 ACS on STN
 AN 1996:95902 HCAPLUS
 DN 124:260752
 TI Preparation of 1H-2,3,4,5-tetraarylpyrroles by oxidation of heterocyclic imine-enamines
 AU Lehuède, J.; Mettey, Y.; Vierfond, J-M.
 CS Lab. Chimie Organique, Faculté Médecine Pharmacie, Poitiers, 86005, Fr.
 SO Synthetic Communications (1996), 26(4), 793-802
 CODEN: SYNCAV; ISSN: 0039-7911
 PB Dekker
 DT Journal
 LA English
 OS CASREACT 124:260752
 GI

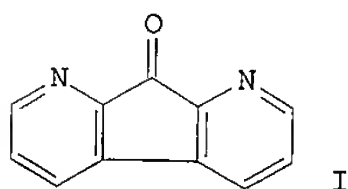


AB Heterocyclic imine-enamines Ar₁CH:C(NH₂)Ar₂ (Ar₁ = 2-pyrazinyl, 2-quinoxalinylyl; Ar₂ = Ph, 2-, 4-pyridyl, 2-furyl, 2-thienyl) were prepd. from metalated Me substituted heterocycles Ar₁Me and arom. nitriles Ar₂CN and then oxidized with lead tetraacetate to give various tetraarylpyrroles I.
 IT 175023-85-5P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (prepn. of tetraarylpyrroles by oxidn. of heterocyclic imine-enamines)
 RN 175023-85-5 HCAPLUS
 CN Pyrazine, 2,2'-(2,5-di-2-pyridinyl-1H-pyrrole-3,4-diyl)bis- (9CI) (CA

INDEX NAME)



L24 ANSWER 16 OF 22 HCAPLUS COPYRIGHT 2003 ACS on STN
 AN 1991:102739 HCAPLUS
 DN 114:102739
 TI 1,8-Diazafluorenone and related compounds. A new reagent for the
 detection of .alpha.-amino acids and latent fingerprints
 AU Grigg, Ronald; Mongkolaussavaratana, Theeravat; Pounds, C. Anthony;
 Sivagnanam, Sasikala
 CS Sch. Chem., Leeds Univ., Leeds, LS2 9JT, UK
 SO Tetrahedron Letters (1990), 31(49), 7215-18
 CODEN: TELEAY; ISSN: 0040-4039
 DT Journal
 LA English
 OS CASREACT 114:102739
 GI



AB 1,8-Diazafluorenone (I) reacts with .alpha.-amino acids and their esters
 via imine formation to give decarboxylated azomethine ylides and
 ester-substituted azomethine ylides, resp. In the presence of
 N-methylmaleimide, these azomethine ylides undergo stereospecific
 cycloaddn. via endo transition states. Analogs of I give similar
 cycloadducts. In the absence of dipolarophiles, the .alpha.-amino acids

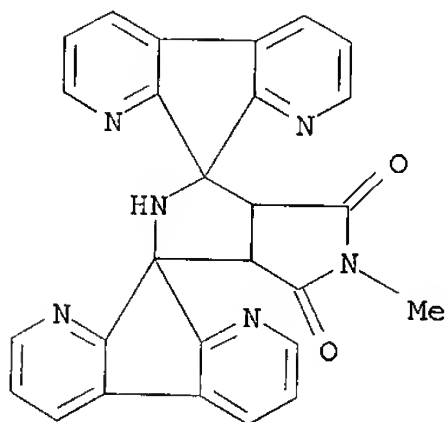
and I give a red fluorescent dye, thus providing a sensitive method for detecting latent fingerprints on paper.

IT 132286-20-5P

RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)

RN 132286-20-5 HCAPLUS

CN Dispiro[9H-cyclopenta[1,2-b:4,3-b']dipyridine-9,1'(2'H)-pyrrolo[3,4-c]pyrrole-3'(3'aH),9''-[9H]cyclopenta[1,2-b:4,3-b']dipyridine]-4',6'(5'H,6'aH)-dione, 5'-methyl-, cis- (9CI) (CA INDEX NAME)



L24 ANSWER 17 OF 22 HCAPLUS COPYRIGHT 2003 ACS on STN

AN 1990:20978 HCAPLUS

DN 112:20978

TI Synthesis, stereochemistry and analgesic activity of 3,7-diazabicyclo[3.3.1]nonan-9-ones and 1,3-diazaadamantan-6-ones

AU Samhammer, Annemarie; Holzgrabe, Ulrike; Haller, Rolf

CS Pharm. Inst., Univ. Kiel, Kiel, 2300, Fed. Rep. Ger.

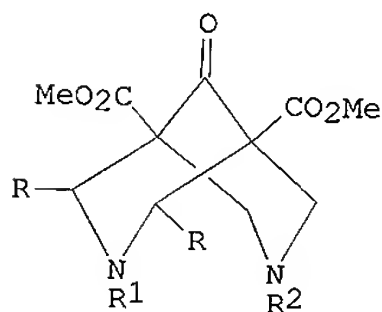
SO Archiv der Pharmazie (Weinheim, Germany) (1989), 322(9), 551-5
CODEN: ARPMAS; ISSN: 0365-6233

DT Journal

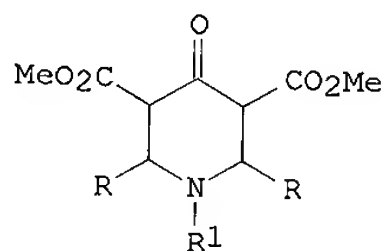
LA German

OS CASREACT 112:20978

GI



I



II

AB The 1,3-diazaadamantan-6-ones I (R = 2-pyridyl, 6-methyl-2-pyridyl, Ph, 3,4,5-Me3C6H2, R1R2 = CH2) are synthesized from the 4-piperidones II. Different conditions lead to stereoisomeric structures. The 3,7-diazabicyclo[3.3.1]nonan-9-ones I (R1 = H, Me, R2 = Me, cyclopropylmethyl, R = same) show similar geometrical isomerism. Whereas

the diazabicyclononanes show opioid-like effects, I (R = 2-pyridyl, R1R2 = CH2) is a peripheral analgesic.

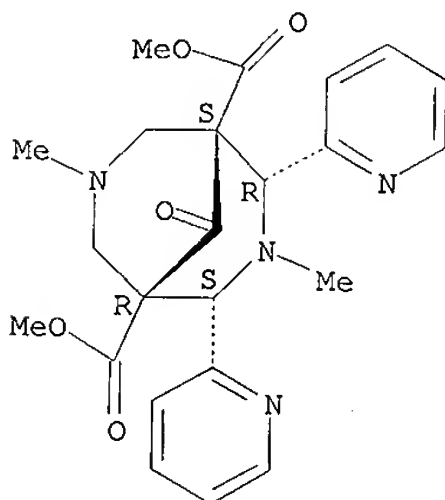
IT 42165-92-4P 97323-45-0P 124189-56-6P
124189-57-7P 124189-58-8P 124263-91-8P
124263-92-9P 124263-93-0P

RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)

RN 42165-92-4 HCAPLUS

CN 3,7-Diazabicyclo[3.3.1]nonane-1,5-dicarboxylic acid, 3,7-dimethyl-9-oxo-2,4-di-2-pyridinyl-, dimethyl ester, (1R,2S,4R,5S)-rel- (9CI) (CA INDEX NAME)

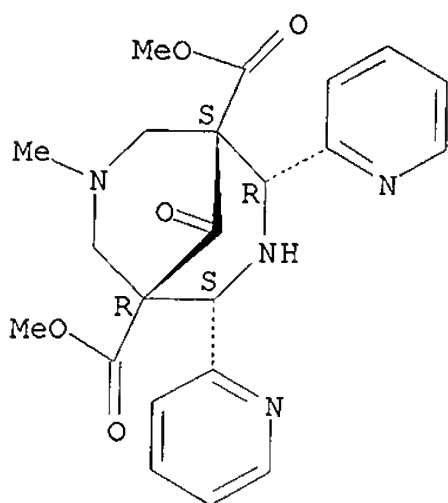
Relative stereochemistry.



RN 97323-45-0 HCAPLUS

CN 3,7-Diazabicyclo[3.3.1]nonane-1,5-dicarboxylic acid, 7-methyl-9-oxo-2,4-di-2-pyridinyl-, dimethyl ester, (1R,2S,4R,5S)-rel- (9CI) (CA INDEX NAME)

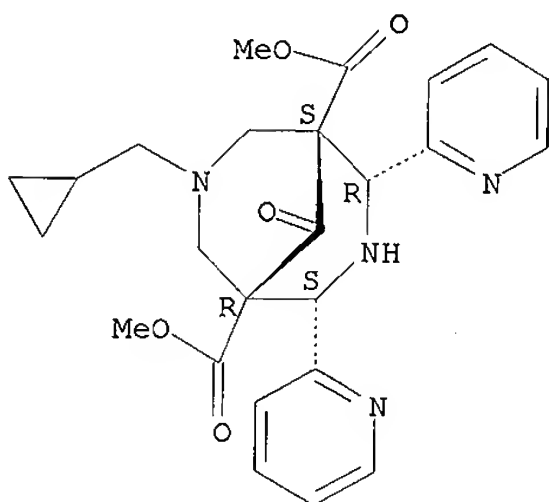
Relative stereochemistry.



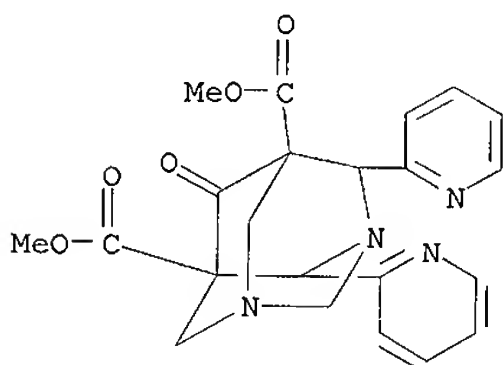
RN 124189-56-6 HCAPLUS

CN 3,7-Diazabicyclo[3.3.1]nonane-1,5-dicarboxylic acid, 7-(cyclopropylmethyl)-9-oxo-2,4-di-2-pyridinyl-, dimethyl ester, (endo,endo)- (9CI) (CA INDEX NAME)

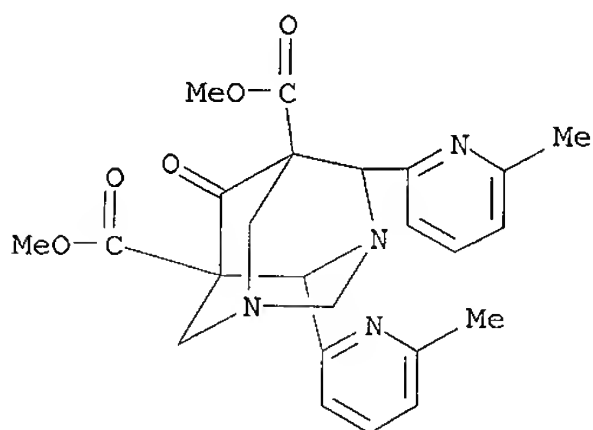
Relative stereochemistry.



RN 124189-57-7 HCAPLUS
 CN 1,3-Diazatricyclo[3.3.1.13,7]decane-5,7-dicarboxylic acid,
 6-oxo-4,10-di-2-pyridinyl-, dimethyl ester, stereoisomer (9CI) (CA INDEX
 NAME)



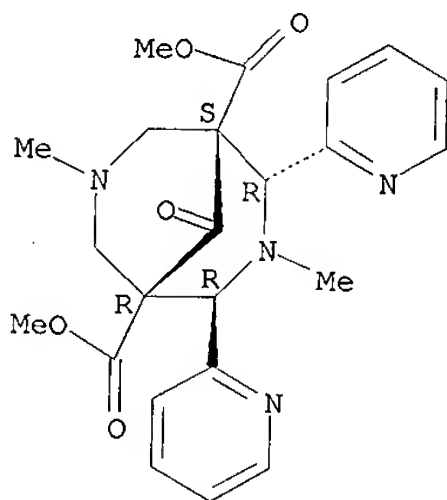
RN 124189-58-8 HCAPLUS
 CN 1,3-Diazatricyclo[3.3.1.13,7]decane-5,7-dicarboxylic acid,
 4,10-bis(6-methyl-2-pyridinyl)-6-oxo-, dimethyl ester, stereoisomer (9CI)
 (CA INDEX NAME)



RN 124263-91-8 HCAPLUS

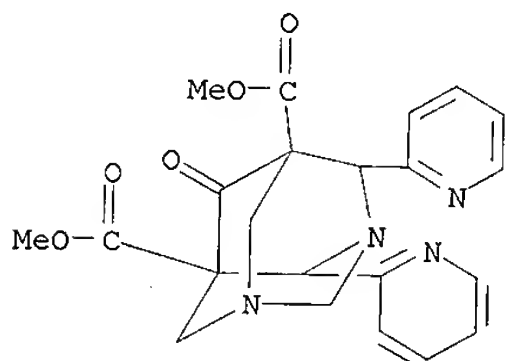
CN 3,7-Diazabicyclo[3.3.1]nonane-1,5-dicarboxylic acid, 3,7-dimethyl-9-oxo-2,4-di-2-pyridinyl-, dimethyl ester, (1R,2S,4S,5S)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.



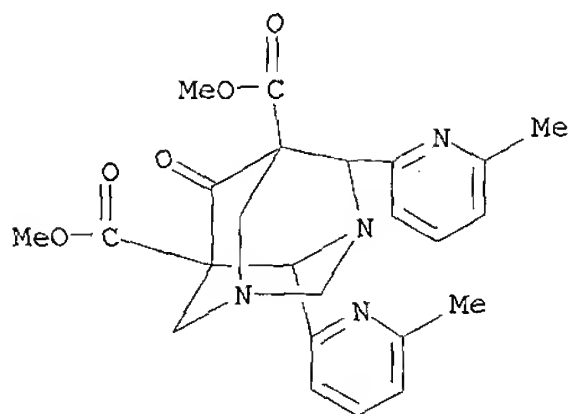
RN 124263-92-9 HCAPLUS

CN 1,3-Diazatricyclo[3.3.1.1^{3,7}]decane-5,7-dicarboxylic acid, 6-oxo-4,10-di-2-pyridinyl-, dimethyl ester, stereoisomer (9CI) (CA INDEX NAME)

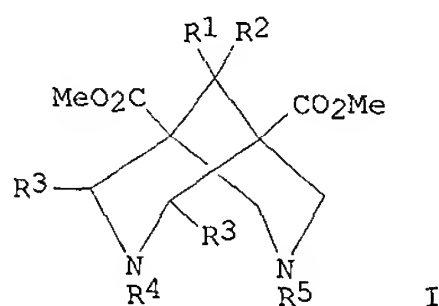


RN 124263-93-0 HCAPLUS

CN 1,3-Diazatricyclo[3.3.1.1^{3,7}]decane-5,7-dicarboxylic acid, 4,10-bis(6-methyl-2-pyridinyl)-6-oxo-, dimethyl ester, stereoisomer (9CI) (CA INDEX NAME)

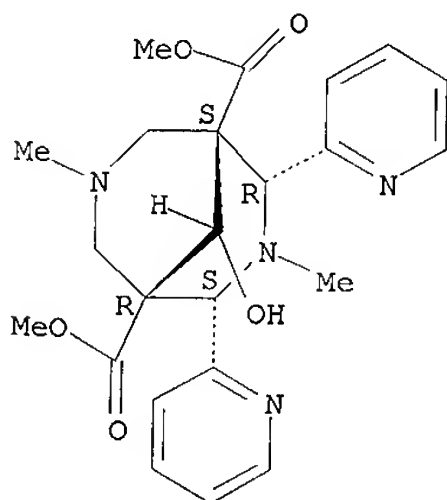


L24 ANSWER 18 OF 22 HCAPLUS COPYRIGHT 2003 ACS on STN
 AN 1990:20977 HCAPLUS
 DN 112:20977
 TI Reductions of 3,7-diazabicyclo[3.3.1]nonan-9-ones and corresponding
 1,3-diazaadamantan-6-ones
 AU Samhammer, Annemarie; Holzgrabe, Ulrike; Haller, Rolf
 CS Pharm. Inst., Univ. Kiel, Kiel, 2300, Fed. Rep. Ger.
 SO Archiv der Pharmazie (Weinheim, Germany) (1989), 322(9), 545-50
 CODEN: ARPMAS; ISSN: 0365-6233
 DT Journal
 LA German
 OS CASREACT 112:20977
 GI

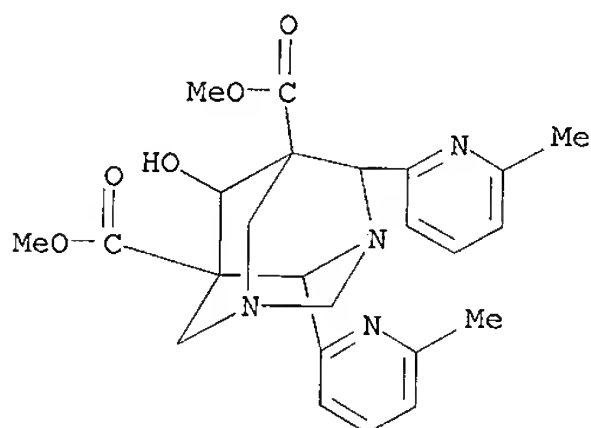


AB The title compds. I (R1R2 = O, R3 = 2-pyridyl, Ph, 6-methyl-2-pyridyl, R4
 = H, Me, R5 = Me, Et; R4R5 = CH2, resp.) are reduced by NaBH4 and LiAlH4
 in various solvents. The reasons for the proportion of the epimeric alcs.
 are discussed. The reaction of I (R1R2 = O, R3 = Ph, R4R5 = CH2) with
 MeMgI yields the ring-opened N-alkylated product.
 IT 36332-87-3P 124189-60-2P 124263-95-2P
 124263-96-3P 124263-97-4P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP
 (Preparation); RACT (Reactant or reagent)
 (prepn. and acetylation of, with acetic anhydride)
 RN 36332-87-3 HCAPLUS
 CN 3,7-Diazabicyclo[3.3.1]nonane-1,5-dicarboxylic acid, 9-hydroxy-3,7-
 dimethyl-2,4-di-2-pyridinyl-, dimethyl ester, (endo,endo,syn)- (9CI) (CA
 INDEX NAME)

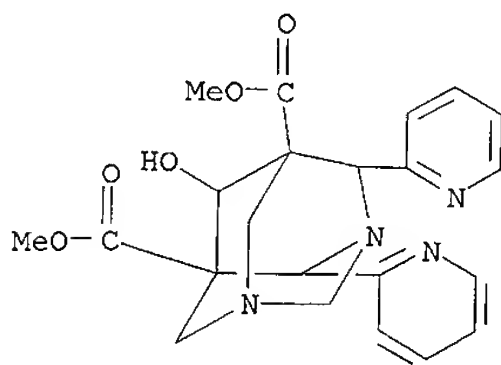
Relative stereochemistry.



RN 124189-60-2 HCAPLUS
 CN 1,3-Diazatricyclo[3.3.1.13,7]decane-5,7-dicarboxylic acid,
 6-hydroxy-8,9-bis(6-methyl-2-pyridinyl)-, dimethyl ester, stereoisomer
 (9CI) (CA INDEX NAME)

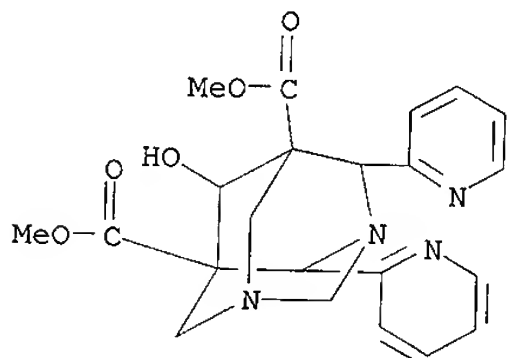


RN 124263-95-2 HCAPLUS
 CN 1,3-Diazatricyclo[3.3.1.13,7]decane-5,7-dicarboxylic acid,
 6-hydroxy-8,9-di-2-pyridinyl-, dimethyl ester, stereoisomer (9CI) (CA
 INDEX NAME)

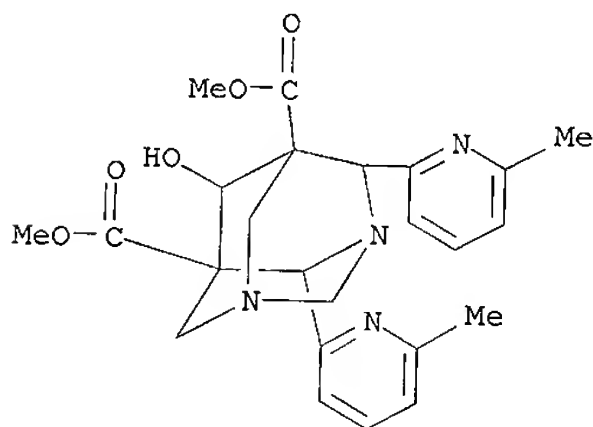


RN 124263-96-3 HCAPLUS

CN 1,3-Diazatricyclo[3.3.1.1^{3,7}]decane-5,7-dicarboxylic acid,
6-hydroxy-8,9-di-2-pyridinyl-, dimethyl ester, stereoisomer (9CI) (CA
INDEX NAME)



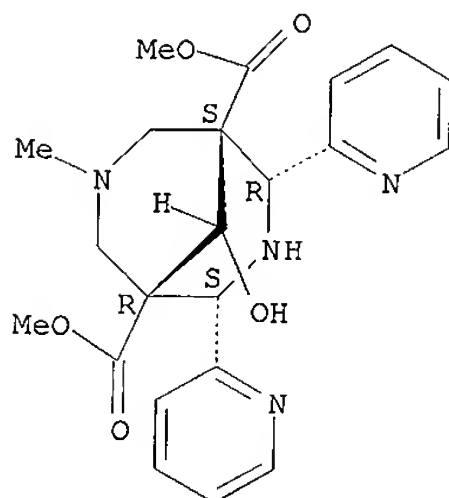
RN 124263-97-4 HCAPLUS
CN 1,3-Diazatricyclo[3.3.1.1^{3,7}]decane-5,7-dicarboxylic acid,
6-hydroxy-8,9-bis(6-methyl-2-pyridinyl)-, dimethyl ester, stereoisomer
(9CI) (CA INDEX NAME)



IT 36332-84-0P 97323-50-7P 124189-60-2DP, boron
complex 124189-62-4P 124189-64-6P 124189-65-7P
124263-95-2DP, boron complex 124263-96-3DP, boron
complex 124263-99-6P 124264-00-2P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)

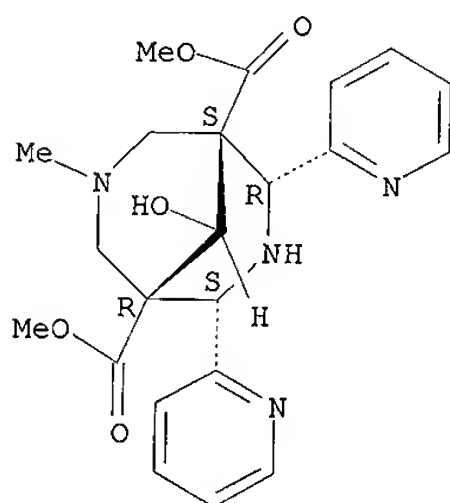
RN 36332-84-0 HCAPLUS
CN 3,7-Diazabicyclo[3.3.1]nonane-1,5-dicarboxylic acid, 9-hydroxy-7-methyl-
2,4-di-2-pyridinyl-, dimethyl ester, (endo,endo,syn)- (9CI) (CA INDEX
NAME)

Relative stereochemistry.

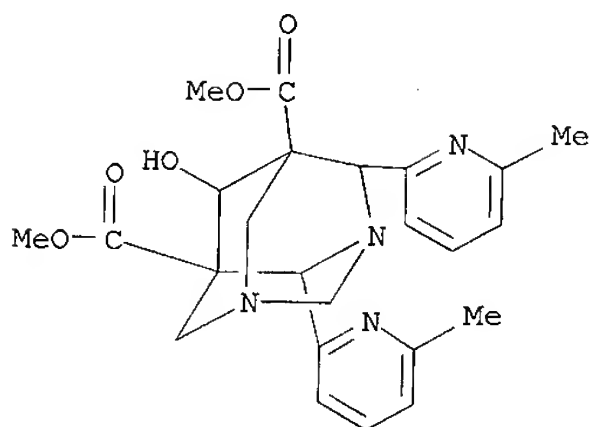


RN 97323-50-7 HCAPLUS
 CN 3,7-Diazabicyclo[3.3.1]nonane-1,5-dicarboxylic acid, 9-hydroxy-7-methyl-2,4-di-2-pyridinyl-, dimethyl ester, (endo,endo,anti)- (9CI) (CA INDEX NAME)

Relative stereochemistry.

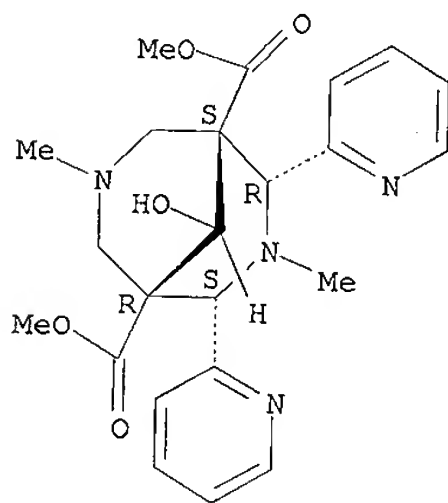


RN 124189-60-2 HCAPLUS
 CN 1,3-Diazatricyclo[3.3.1.13,7]decane-5,7-dicarboxylic acid, 6-hydroxy-8,9-bis(6-methyl-2-pyridinyl)-, dimethyl ester, stereoisomer (9CI) (CA INDEX NAME)

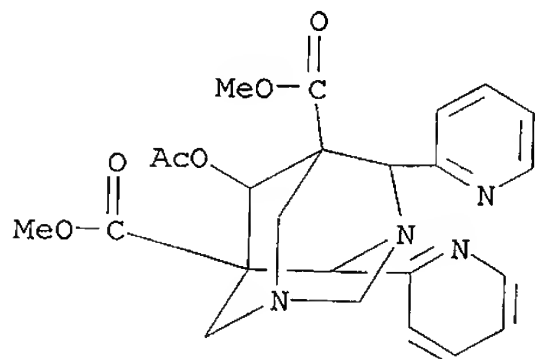


RN 124189-62-4 HCAPLUS
 CN 3,7-Diazabicyclo[3.3.1]nonane-1,5-dicarboxylic acid, 9-hydroxy-3,7-dimethyl-2,4-di-2-pyridinyl-, dimethyl ester, (endo,endo,anti)- (9CI) (CA INDEX NAME)

Relative stereochemistry.

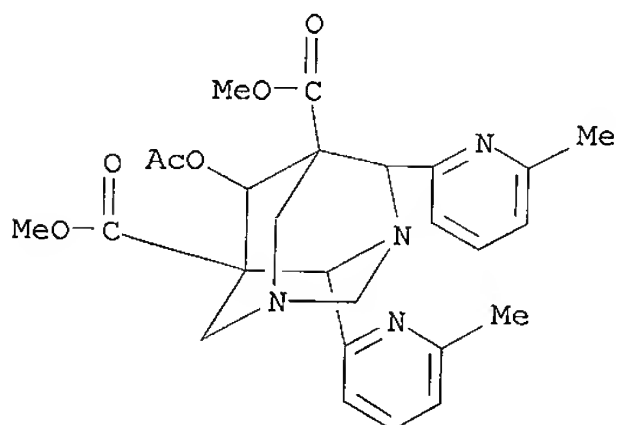


RN 124189-64-6 HCAPLUS
 CN 1,3-Diazatricyclo[3.3.1.13,7]decane-5,7-dicarboxylic acid, 6-(acetyloxy)-8,9-di-2-pyridinyl-, dimethyl ester, stereoisomer (9CI) (CA INDEX NAME)



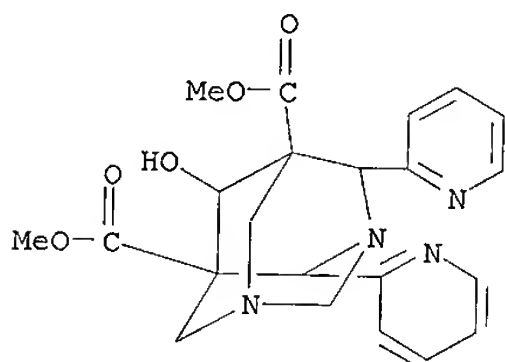
RN 124189-65-7 HCAPLUS

CN 1,3-Diazatricyclo[3.3.1.1^{3,7}]decane-5,7-dicarboxylic acid,
6-(acetyloxy)-8,9-bis(6-methyl-2-pyridinyl)-, dimethyl ester, stereoisomer
(9CI) (CA INDEX NAME)



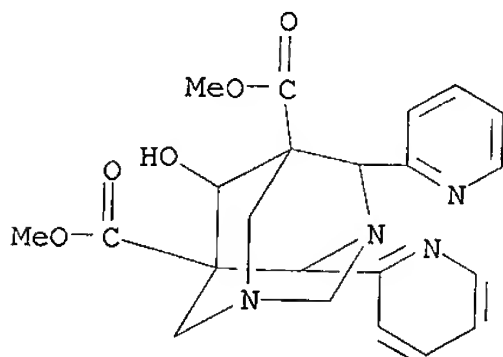
RN 124263-95-2 HCAPLUS

CN 1,3-Diazatricyclo[3.3.1.1^{3,7}]decane-5,7-dicarboxylic acid,
6-hydroxy-8,9-di-2-pyridinyl-, dimethyl ester, stereoisomer (9CI) (CA
INDEX NAME)



RN 124263-96-3 HCAPLUS

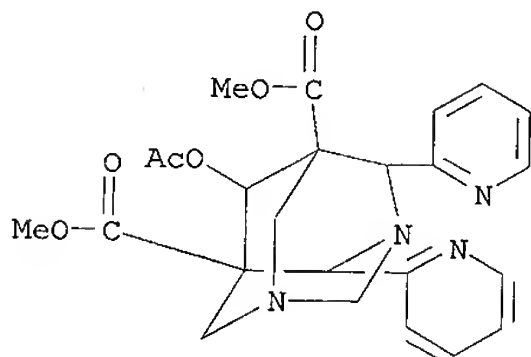
CN 1,3-Diazatricyclo[3.3.1.1^{3,7}]decane-5,7-dicarboxylic acid,
6-hydroxy-8,9-di-2-pyridinyl-, dimethyl ester, stereoisomer (9CI) (CA
INDEX NAME)



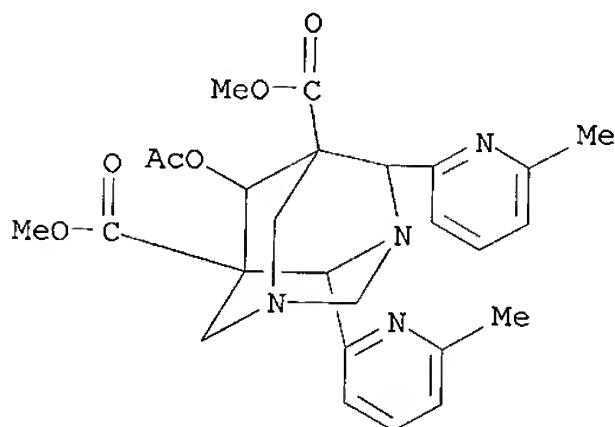
RN 124263-99-6 HCAPLUS

CN 1,3-Diazatricyclo[3.3.1.1^{3,7}]decane-5,7-dicarboxylic acid,
6-(acetyloxy)-8,9-di-2-pyridinyl-, dimethyl ester, stereoisomer (9CI) (CA

INDEX NAME)

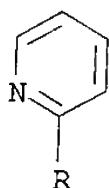
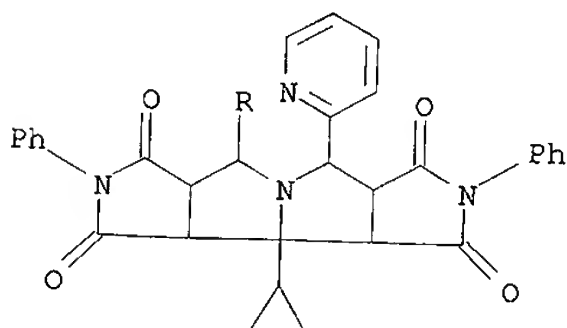


RN 124264-00-2 HCAPLUS
 CN 1,3-Diazatricyclo[3.3.1.1^{3,7}]decane-5,7-dicarboxylic acid,
 6-(acetyloxy)-8,9-bis(6-methyl-2-pyridinyl)-, dimethyl ester, stereoisomer
 (9CI) (CA INDEX NAME)

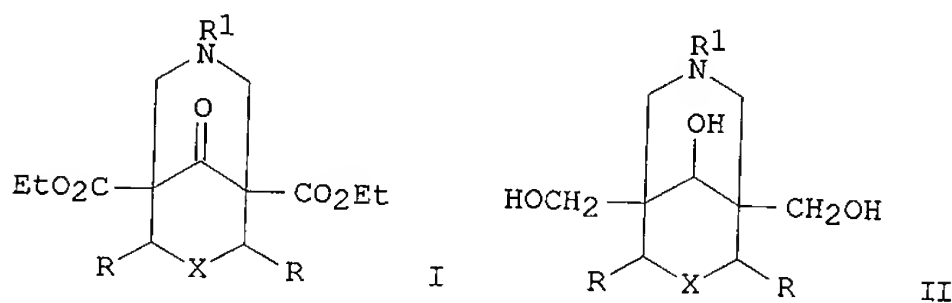


L24 ANSWER 19 OF 22 HCAPLUS COPYRIGHT 2003 ACS on STN
 AN 1989:38390 HCAPLUS
 DN 110:38390
 TI X:Y-ZH Systems as potential 1,3-dipoles. part 16. Cyclopropyl-substituted
 azomethine ylides as mechanistic probes in 1,3-dipolar cycloaddition
 reactions
 AU Grigg, Ronald; Armstrong, William P.
 CS Chem. Dep., Queen's Univ., Belfast, BT9 5AG, UK
 SO Tetrahedron (1988), 44(5), 1523-34
 CODEN: TETRAB; ISSN: 0040-4020
 DT Journal
 LA English
 OS CASREACT 110:38390
 AB Cycloaddns. involving the 1,2-prototropic route and the decarboxylative
 route to azomethine ylides were studied with cyclopropyl substituents
 located on one or both carbon atoms of the azomethine ylides and in
 several instances in the dipolarophile. Cycloadducts were obtained in
 good yield with no evidence of biradical intermediates, i.e., no products
 arising from cyclopropyl radical .dblharw. but-3-enyl radical
 rearrangements were detected.
 IT 118328-34-0P
 RL: SPN (Synthetic preparation); PREP (Preparation)

(prepn. of)
 RN 118328-34-0 HCAPLUS
 CN 1H-Dipyrrolo[3,4-a:3',4'-f]pyrrolizine-1,3,4,6(2H,3aH,5H)-tetrone,
 3b-cyclopropylhexahydro-2,5-diphenyl-7,9-di-2-pyridinyl-,
 (3a.alpha.,3b.alpha.,3c.alpha.,6a.alpha.,7.beta.,9.beta.,9a.alpha.)- (9CI)
 (CA INDEX NAME)



L24 ANSWER 20 OF 22 HCAPLUS COPYRIGHT 2003 ACS on STN
 AN 1985:541860 HCAPLUS
 DN 103:141860
 TI Reductions of heterocyclic 9-oxobicyclo[3.3.1]nonane-1,5-dicarboxylates
 with complex metal hydrides yielding trivalent alcohols
 AU Haller, Rolf; Ashauer, Ulrike
 CS Pharm. Inst., Univ. Kiel, Kiel, 2300/1, Fed. Rep. Ger.
 SO Archiv der Pharmazie (Weinheim, Germany) (1985), 318(6), 525-31
 CODEN: ARPMAS; ISSN: 0365-6233
 DT Journal
 LA German
 OS CASREACT 103:141860
 GI



AB The heterocyclic bicyclononanones I ($X = NH$, $R = 2$ -pyridyl, $R1 = Me$; $X = O$, $R = Ph$, $R1 = Me$, $PhCH_2$, $H_2C:CHCH_2$; $X = S$, $R = 2$ -pyridyl, $R1 = Me$) were reduced with $LiAlH_4$ to give epimeric trivalent alcs. II, whose

configurations, NMR, and IR spectra were discussed. The alcs. were converted to their O-triacetyl derivs.

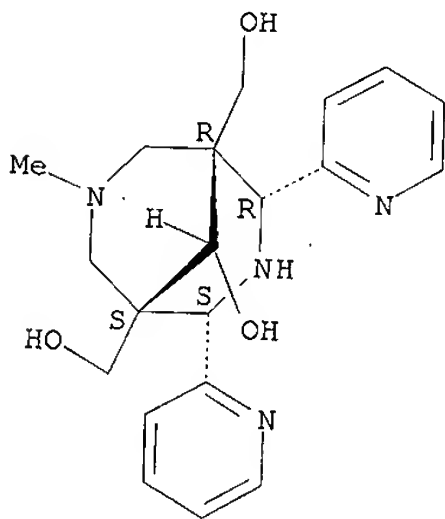
IT 98450-22-7P

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(prepn. and NMR of)

RN 98450-22-7 HCAPLUS

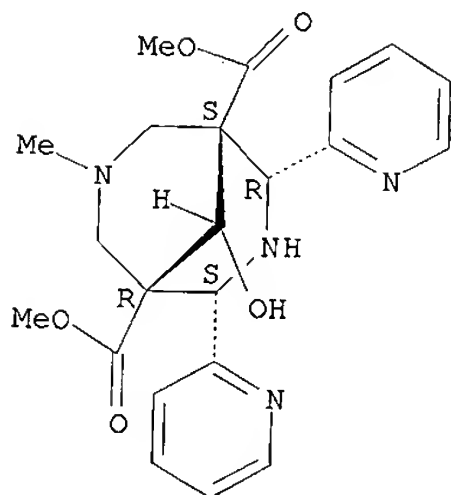
CN 3,7-Diazabicyclo[3.3.1]nonane-1,5-dimethanol, 9-hydroxy-7-methyl-2,4-di-2-pyridinyl-, (endo,endo,syn)- (9CI) (CA INDEX NAME)

Relative stereochemistry.



- L24 ANSWER 21 OF 22 HCAPLUS COPYRIGHT 2003 ACS on STN
 AN 1985:453976 HCAPLUS
 DN 103:53976
 TI Reductions of substituted 3,7-diaza- and 3-thia-7-azabicyclo[3.3.1]nonan-9-ones with sodium borohydride
 AU Haller, Rolf; Ashauer, Ulrike
 CS Pharm. Inst., Univ. Kiel, Kiel, 2300/1, Fed. Rep. Ger.
 SO Archiv der Pharmazie (Weinheim, Germany) (1985), 318(5), 405-10
 CODEN: ARPMAS; ISSN: 0365-6233
 DT Journal
 LA German
 OS CASREACT 103:53976
 GI For diagram(s), see printed CA Issue.
 AB Redn. of bicyclononanones I (X = NH, R1 = Ph, 2-pyridyl, R2 = Me; X = NH, R1 = 2-pyridyl, R2 = CH2Ph; X = S, R1 = 2-pyridyl, R2 = Me) with NaBH4 in aq. dioxane was highly stereoselective, to give the axial bicyclononanols II (R3 = OH, R4 = H). In MeOH, NaBH4 redn. gave mixts. of epimers II (R3 = OH, R4 = H; R3 = H, R4 = OH).
 IT 36332-84-0P 36332-85-1P 97323-50-7P 97323-52-9P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (prepn. of, by redn. of oxo analog with sodium borohydride)
 RN 36332-84-0 HCAPLUS
 CN 3,7-Diazabicyclo[3.3.1]nonane-1,5-dicarboxylic acid, 9-hydroxy-7-methyl-2,4-di-2-pyridinyl-, dimethyl ester, (endo,endo,syn)- (9CI) (CA INDEX NAME)

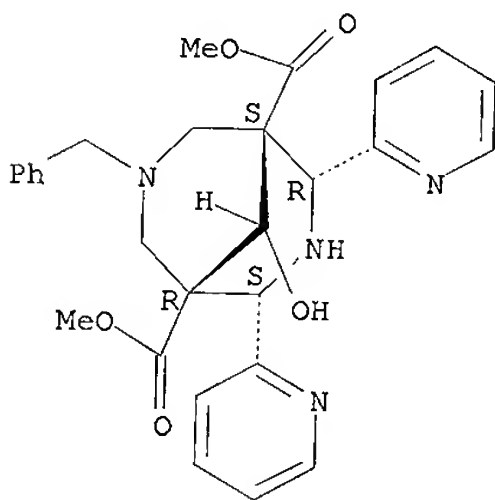
Relative stereochemistry.



RN 36332-85-1 HCAPLUS

CN 3,7-Diazabicyclo[3.3.1]nonane-1,5-dicarboxylic acid, 9-hydroxy-7-(phenylmethyl)-2,4-di-2-pyridinyl-, dimethyl ester, (endo,endo,syn)- (9CI)
(CA INDEX NAME)

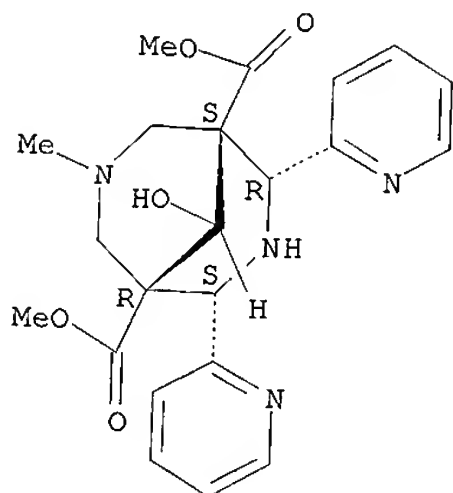
Relative stereochemistry.



RN 97323-50-7 HCAPLUS

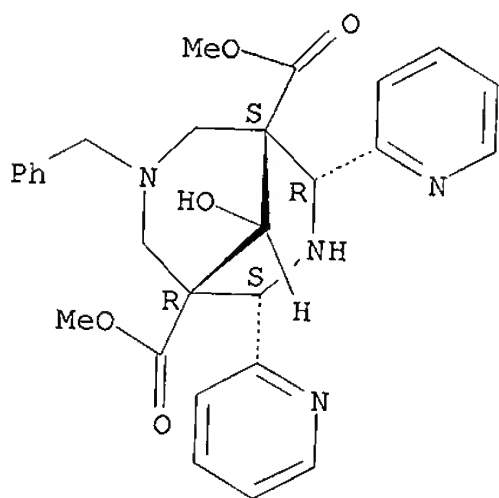
CN 3,7-Diazabicyclo[3.3.1]nonane-1,5-dicarboxylic acid, 9-hydroxy-7-methyl-2,4-di-2-pyridinyl-, dimethyl ester, (endo,endo,anti)- (9CI) (CA INDEX NAME)

Relative stereochemistry.



RN 97323-52-9 HCAPLUS
 CN 3,7-Diazabicyclo[3.3.1]nonane-1,5-dicarboxylic acid, 9-hydroxy-7-(phenylmethyl)-2,4-di-2-pyridinyl-, dimethyl ester, (endo,endo,anti)-(9CI) (CA INDEX NAME)

Relative stereochemistry.



L24 ANSWER 22 OF 22 HCAPLUS COPYRIGHT 2003 ACS on STN
 AN 1972:3821 HCAPLUS
 DN 76:3821
 TI Substituted 3,7-diazabicyclo[3.3.1]nonan-9-ols
 AU Haller, R.; Unholzer, H.
 CS Pharm. Inst., Univ. Freiburg, Freiburg/Breisgau, Fed. Rep. Ger.
 SO Archiv der Pharmazie und Berichte der Deutschen Pharmazeutischen Gesellschaft (1971), 304(9), 654-9
 CODEN: APBDAJ; ISSN: 0376-0367
 DT Journal
 LA German
 GI For diagram(s), see printed CA Issue.
 AB The title compds. (I, R = H or Me, R1 = 2- or 3-pyridyl, R2 = Me or Et, R3 = Me or CH2Ph) were prep'd. by redn. of the corresponding 9-oxo compds. with NaBH4 at very high stereoselectivity. The stereochemistry of the

methoiodide of I (R = H, R1 = 2-pyridyl, R2 = R3 = Me) was elucidated by nuclear Overhauser effect measurements.

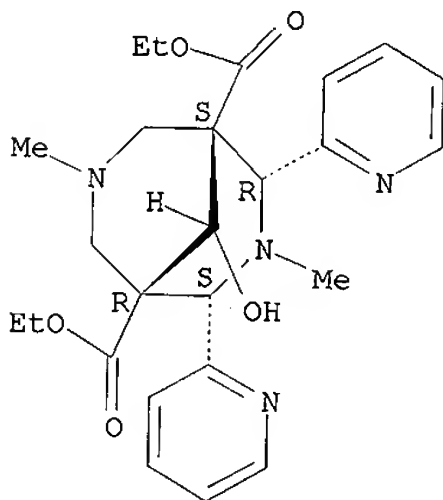
IT 36301-17-4P 36301-18-5P 36332-84-0P
36332-85-1P 36332-86-2P 36332-87-3P
36332-88-4P

RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)

RN 36301-17-4 HCAPLUS

CN 3,7-Diazabicyclo[3.3.1]nonane-1,5-dicarboxylic acid, 9-hydroxy-3,7-dimethyl-2,4-di-2-pyridinyl-, diethyl ester, (endo,endo,syn)- (9CI) (CA INDEX NAME)

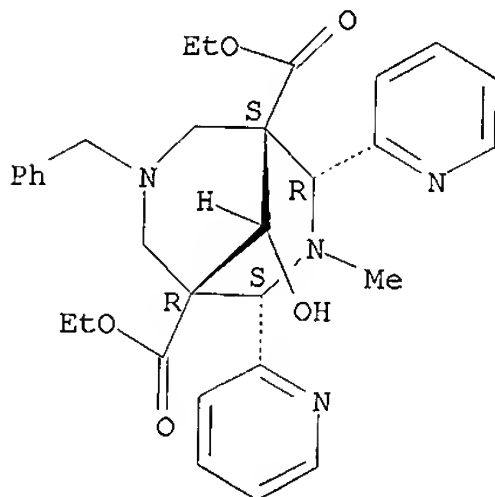
Relative stereochemistry.



RN 36301-18-5 HCAPLUS

CN 3,7-Diazabicyclo[3.3.1]nonane-1,5-dicarboxylic acid, 9-hydroxy-3-methyl-7-(phenylmethyl)-2,4-di-2-pyridinyl-, diethyl ester, (endo,endo,syn)- (9CI) (CA INDEX NAME)

Relative stereochemistry.

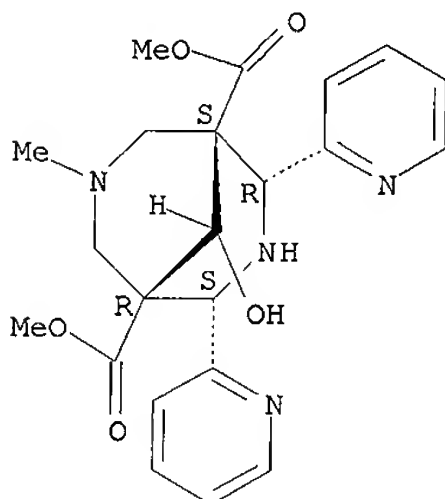


RN 36332-84-0 HCAPLUS

CN 3,7-Diazabicyclo[3.3.1]nonane-1,5-dicarboxylic acid, 9-hydroxy-7-methyl-2,4-di-2-pyridinyl-, dimethyl ester, (endo,endo,syn)- (9CI) (CA INDEX NAME)

NAME)

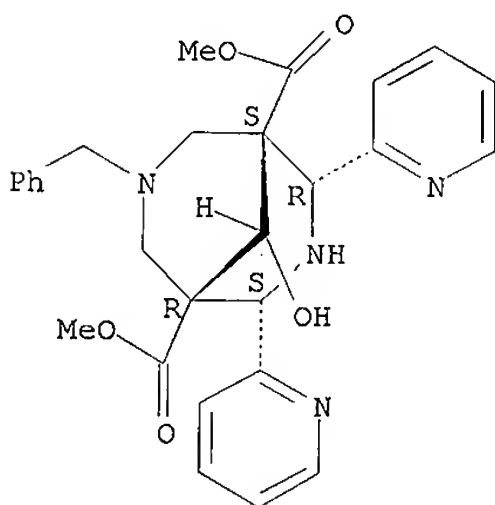
Relative stereochemistry.



RN 36332-85-1 HCAPLUS

CN 3,7-Diazabicyclo[3.3.1]nonane-1,5-dicarboxylic acid, 9-hydroxy-7-(phenylmethyl)-2,4-di-2-pyridinyl-, dimethyl ester, (endo,endo,syn)- (9CI)
(CA INDEX NAME)

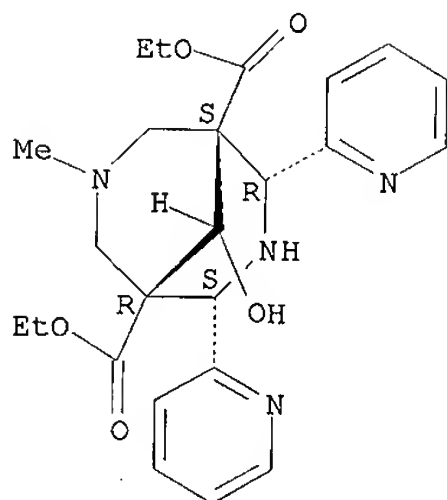
Relative stereochemistry.



RN 36332-86-2 HCAPLUS

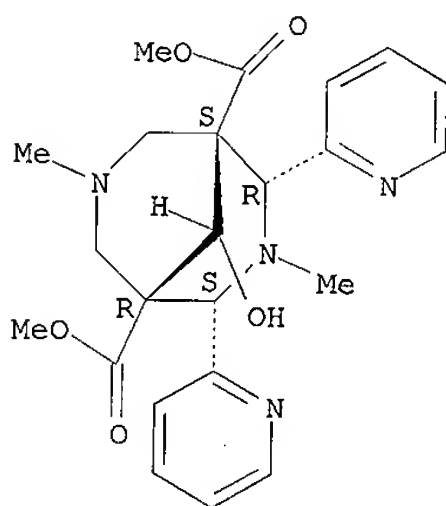
CN 3,7-Diazabicyclo[3.3.1]nonane-1,5-dicarboxylic acid, 9-hydroxy-7-methyl-2,4-di-2-pyridinyl-, diethyl ester, (endo,endo,syn)- (9CI) (CA INDEX NAME)

Relative stereochemistry.



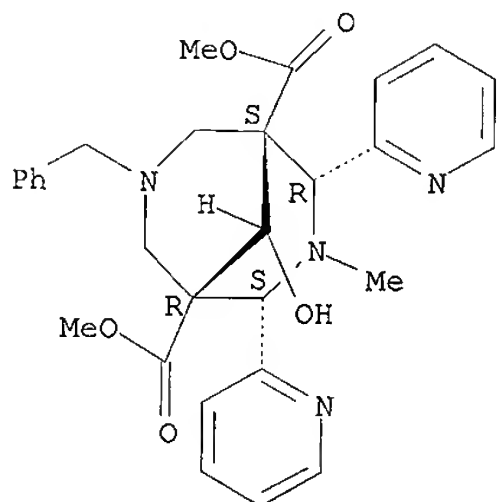
RN 36332-87-3 HCAPLUS
 CN 3,7-Diazabicyclo[3.3.1]nonane-1,5-dicarboxylic acid, 9-hydroxy-3,7-dimethyl-2,4-di-2-pyridinyl-, dimethyl ester, (endo,endo,syn)- (9CI) (CA INDEX NAME)

Relative stereochemistry.



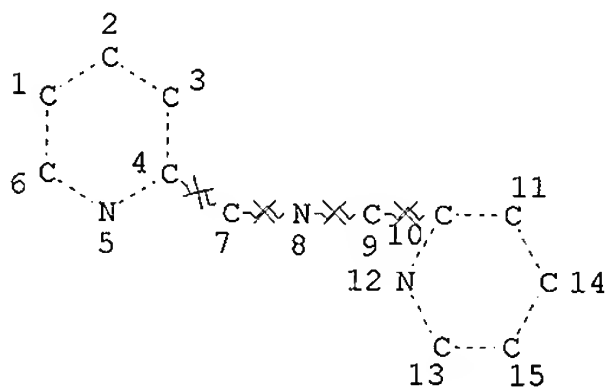
RN 36332-88-4 HCAPLUS
 CN 3,7-Diazabicyclo[3.3.1]nonane-1,5-dicarboxylic acid, 9-hydroxy-3-methyl-7-(phenylmethyl)-2,4-di-2-pyridinyl-, dimethyl ester, (endo,endo,syn)- (9CI) (CA INDEX NAME)

Relative stereochemistry.



=> D QUE
L3

STR



~~Broad structure search~~
~~Combined with text~~

NODE ATTRIBUTES:

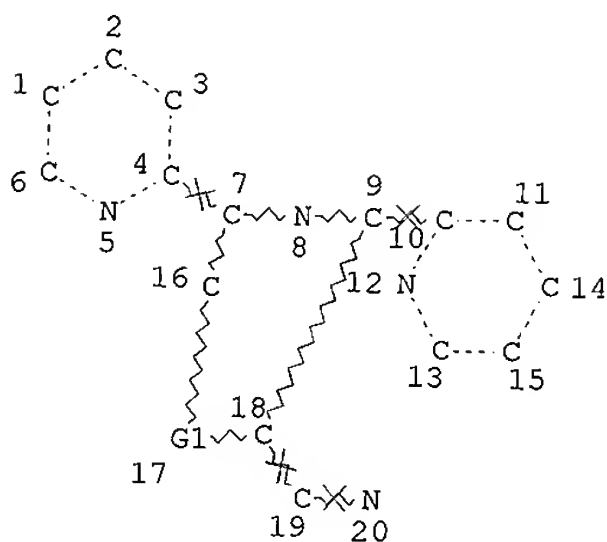
NSPEC IS RC AT 7
NSPEC IS RC AT 8
NSPEC IS RC AT 9
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 15

STEREO ATTRIBUTES: NONE

L5 20763 SEA FILE=REGISTRY SSS FUL L3
L8 STR



*structure search
combined with
CLO₄ - claim 20*

REP G1=(0-3) C
NODE ATTRIBUTES:
NSPEC IS RC AT 19
NSPEC IS RC AT 20
DEFAULT MLEVEL IS ATOM
MLEVEL IS CLASS AT 16 18
DEFAULT ECLEVEL IS LIMITED
ECOUNT IS UNLIMITED AT 16 18

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 20

STEREO ATTRIBUTES: NONE
L11 293 SEA FILE=REGISTRY SUB=L5 SSS FUL L8
L13 43 SEA FILE=HCAPLUS ABB=ON L11
L14 26 SEA FILE=HCAPLUS ABB=ON L13(L) (PREP OR IMF OR SPN)/RL
L15 4 SEA FILE=HCAPLUS ABB=ON L14 AND BLEACH?
L22 15 SEA FILE=REGISTRY ABB=ON L11 AND CLO₄
L23 5 SEA FILE=HCAPLUS ABB=ON L22
L24 22 SEA FILE=HCAPLUS ABB=ON L14 NOT L15
L25 2 SEA FILE=HCAPLUS ABB=ON (L23 OR L24 OR L15) NOT (L24 OR L15)

=> D L25 BIB ABS HITSTR

Priority

L25 ANSWER 1 OF 2 HCAPLUS COPYRIGHT 2003 ACS on STN
AN 2003:11253 HCAPLUS
DN 138:311811
TI Structural variation in transition-metal bispidine compounds
AU Comba, Peter; Kerscher, Marion; Merz, Michael; Muller, Vera; Pritzkow, Hans; Remenyi, Rainer; Schiek, Wolfgang; Xiong, Yun
CS Anorganisch-Chemisches Institut Universitat Heidelberg, Heidelberg, 69120, Germany
SO Chemistry--A European Journal (2002), 8(24), 5750-5760
CODEN: CEUJED; ISSN: 0947-6539
PB Wiley-VCH Verlag GmbH & Co. KGaA
DT Journal
LA English
AB The exptl. detd. mol. structures of 40 transition metal complexes with the

tetradentate bispyridine-substituted bispidone ligand, 2,4-bis(2-pyridine)-3,7-diazabicyclo[3.3.1]nonane-9-one [M(bisp)XYZ]_n+; (M = CrIII, MnII, FeII, CoII, CuII, CuI, ZnII; X, Y, Z = mono- or bidentate co-ligands; penta-, hexa- or heptacoordinate complexes) were characterized in detail, supported by forcefield and DFT calcns. While the bispidone ligand is very rigid (N3.tplbond.N7 distance = 2.933 \pm 0.025 \AA), it tolerates a large range of metal-donor bond lengths (2.07 \AA < .SIGMA.(M-N)/4 < 2.35 \AA). Of particular interest is the ratio of the bond lengths between the metal center and the two tertiary amine donors (0.84 \AA < M-N3/M-N7 < 1.05 \AA) and the fact that, in terms of this ratio there seem to be two clusters with M-N3 < M-N7 and M-N3 .gtoreq. M-N7. Calcns. indicate that the two structural types are close to degenerate, and the structural form therefore depends on the metal ion, the no. and type of co-ligands, as well as structural variations of the bispidone ligand backbone. Tuning of the structures is of importance since the structurally differing complexes have very different stabilities and reactivities. Crystallog. data are given for 15 complexes.

IT 510719-36-5

RL: PRP (Properties)
(crystal structure of)

RN 510719-36-5 HCAPLUS

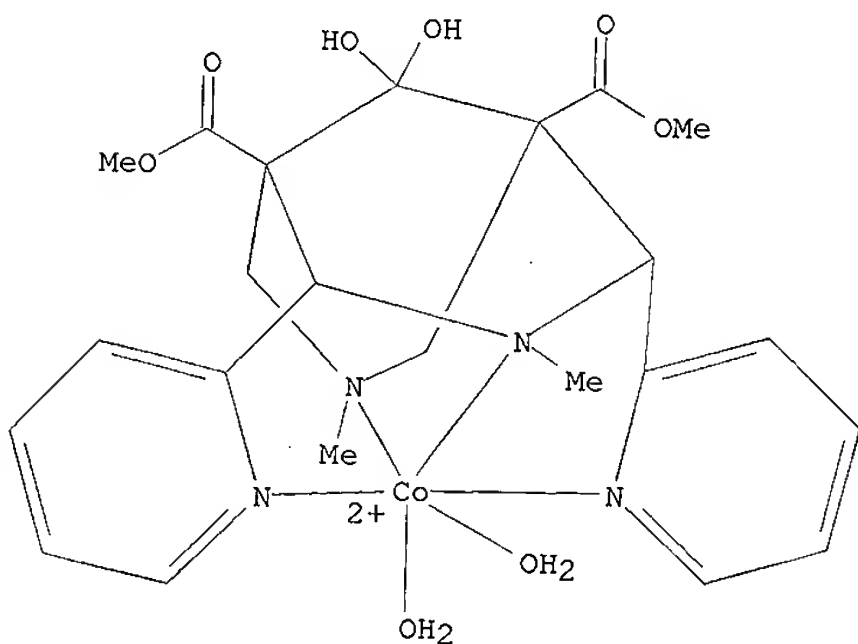
CN Cobalt(2+), diaqua[dimethyl 9,9-dihydroxy-3,7-dimethyl-2,4-di(2-pyridinyl-.kappa.N)-3,7-diazabicyclo[3.3.1]nonane-1,5-dicarboxylate-.kappa.N3,.kappa.N7]-, (OC-6-43)-, diperchlorate (9CI) (CA INDEX NAME)

CM 1

CRN 510719-35-4

CMF C23 H32 Co N4 O8

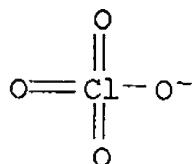
CCI CCS



CM 2

CRN 14797-73-0

CMF Cl O4



IT 510719-23-0 510719-49-0

RL: PRP (Properties)

(crystal structure of mixed crystal contg.)

RN 510719-23-0 HCAPLUS

CN Manganese(2+), bis(2,4-pentanedionato-.kappa.O,.kappa.O')[.mu.-[rel-tetramethyl (1R,1'R,5S,5'S,6R,6R',8S,8'S)-3,3'-(1,2-ethanediyl)bis(9-hydroxy-9-methoxy-7-methyl-6,8-di(2-pyridinyl-.kappa.N)-3,7-diazabicyclo[3.3.1]nonane-1,5-dicarboxylate-.kappa.N3,.kappa.N7)]]di-, stereoisomer, diperchlorate, compd. with methanol (1:2) (9CI) (CA INDEX NAME)

CM 1

CRN 67-56-1

CMF C H4 O

H₃C-OH

CM 2

CRN 510719-22-9

CMF C58 H72 Mn2 N8 O16 . 2 Cl O4

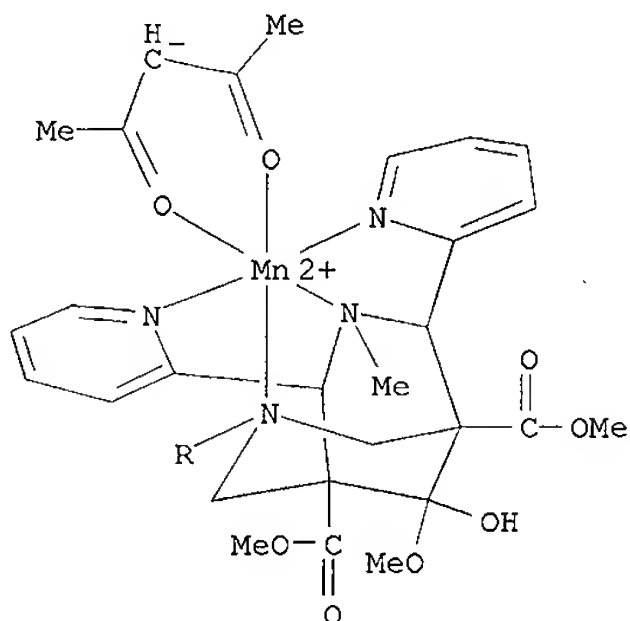
CM 3

CRN 510719-21-8

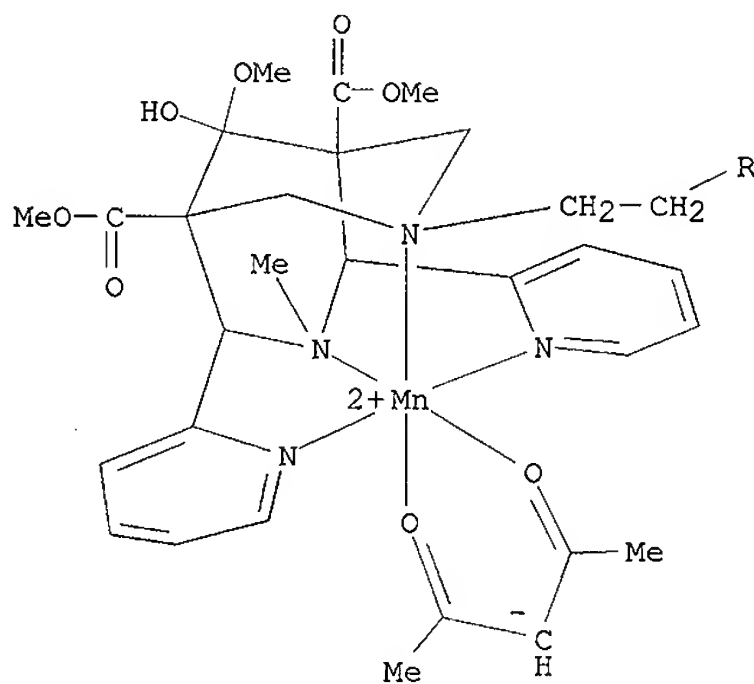
CMF C58 H72 Mn2 N8 O16

CCI CCS

PAGE 1-A



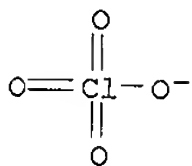
PAGE 2-A



CM 4

CRN 14797-73-0

CMF Cl 04



RN 510719-49-0 HCAPLUS
 CN Manganese(2+), bis(2,4-pentanedionato-.kappa.O,.kappa.O') [.mu.-
 [tetramethyl 3,3'-(1,2-ethanediyl)bis[9,9-dihydroxy-7-methyl-6,8-di(2-
 pyridinyl-.kappa.N)-3,7-diazabicyclo[3.3.1]nonane-1,5-dicarboxylate-
 .kappa.N3,.kappa.N7]]]di-, diperchlorate, compd. with methanol (1:2) (9CI)
 (CA INDEX NAME)

CM 1

CRN 67-56-1
 CMF C H4 O

H₃C-OH

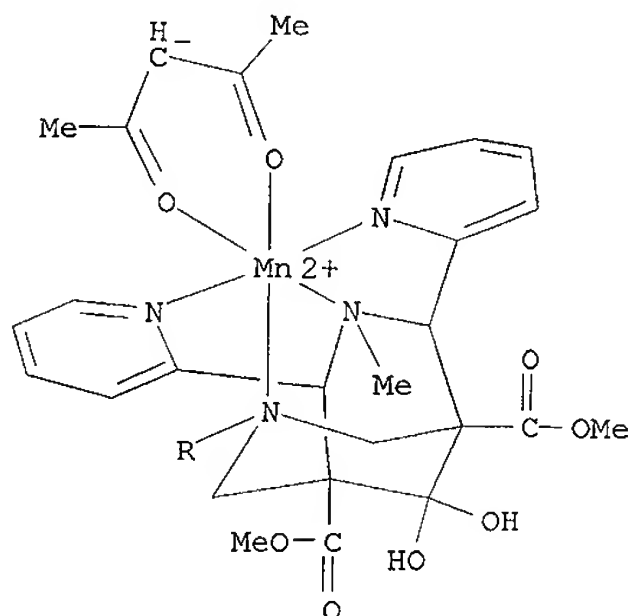
CM 2

CRN 510719-48-9
 CMF C56 H68 Mn2 N8 O16 . 2 Cl O4

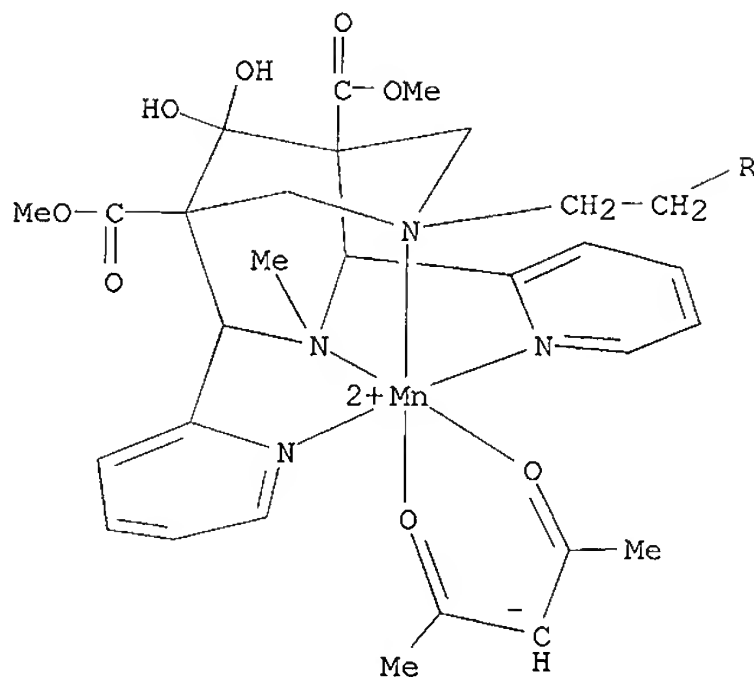
CM 3

CRN 510719-47-8
 CMF C56 H68 Mn2 N8 O16
 CCI CCS

PAGE 1-A



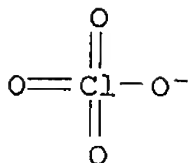
PAGE 2-A



CM 4

CRN 14797-73-0

CMF Cl 04



RE.CNT 83 THERE ARE 83 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

=>

=> D L25 BIB ABS HITSTR 2

L25 ANSWER 2 OF 2 HCAPLUS COPYRIGHT 2003 ACS on STN
AN 2001:8099 HCAPLUS
DN 134:322590
TI Structural studies on dicopper(ii) compounds with catechol oxidase activity
AU Borzel, Heidi; Comba, Peter; Pritzkow, Hans
CS Anorganisch-Chemisches Institut, Universitat Heidelberg, Heidelberg, D-69120, Germany
SO Chemical Communications (Cambridge) (2001), (1), 97-98
CODEN: CHCOFS; ISSN: 1359-7345

Priority

applicant

PB Royal Society of Chemistry

DT Journal

LA English

AB The x-ray crystal structures of three low mol. wt. models of catechol oxidase with three different coordination modes are reported; and the compd. with a bridging catecholate is shown to be the catalytically most active form.

IT 337359-98-5 337360-03-9

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)
(structural studies on dicopper(ii) compds. with catechol oxidase activity)

RN 337359-98-5 HCAPLUS

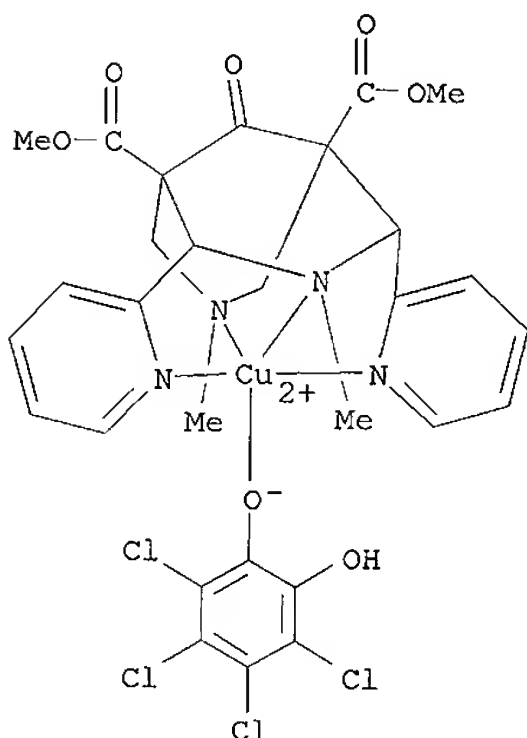
CN Copper(1+), [rel-(1R,2S,3R,4R,5S,7R)-dimethyl 3,7-dimethyl-9-oxo-2,4-di(2-pyridinyl-.kappa.N)-3,7-diazabicyclo[3.3.1]nonane-1,5-dicarboxylate-.kappa.N3,.kappa.N7](3,4,5,6-tetrachloro-1,2-benzenediolato-.kappa.O)-, (SP-5-32)-, perchlorate (9CI) (CA INDEX NAME)

CM 1

CRN 337359-97-4

CMF C29 H27 Cl4 Cu N4 O7

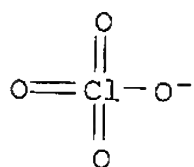
CCI CCS



CM 2

CRN 14797-73-0

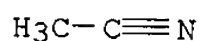
CMF Cl O4



RN 337360-03-9 HCAPLUS
 CN Copper(2+), [.mu.-[3,4,5,6-tetrachloro-1,2-benzenediolato(2-)-
 .kappa.O:.kappa.O']][.mu.-[tetramethyl rel-(1R,1'R,3R,3'R,5S,5'S,6R,6'R,7R,
 ,7'R,8S,8'S)-3,3'-(1,3-propanediyl)bis[7-methyl-9-oxo-6,8-di(2-pyridinyl-
 .kappa.N)-3,7-diazabicyclo[3.3.1]nonane-1,5-dicarboxylate-
 .kappa.N3,.kappa.N7]]]di-, stereoisomer, diperchlorate, compd. with
 acetonitrile (1:1), trihydrate (9CI) (CA INDEX NAME)

CM 1

CRN 75-05-8
 CMF C2 H3 N

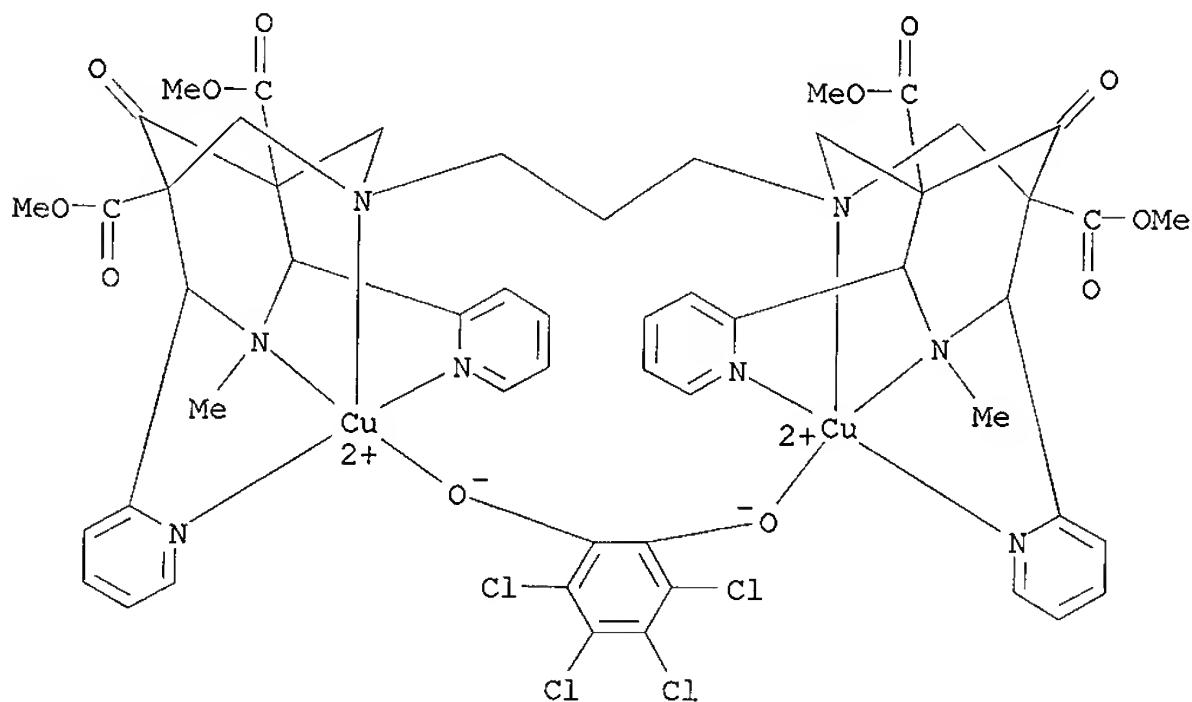


CM 2

CRN 337360-02-8
 CMF C53 H52 Cl4 Cu2 N8 O12 . 2 Cl O4

CM 3

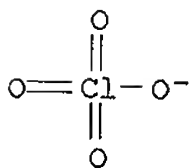
CRN 337360-01-7
 CMF C53 H52 Cl4 Cu2 N8 O12
 CCI CCS



CM 4

CRN 14797-73-0

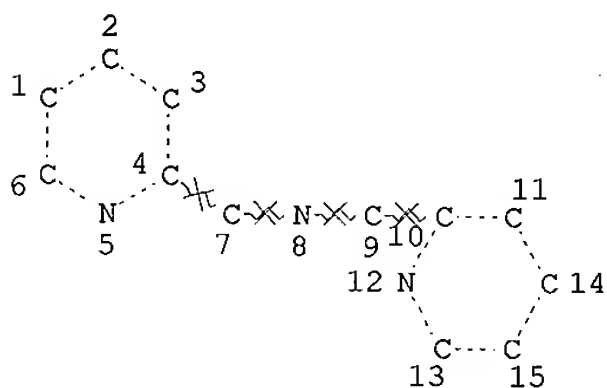
CMF Cl 04



RE.CNT 19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> D QUE
L3

STR



*Broad search
Combined with
Tept*

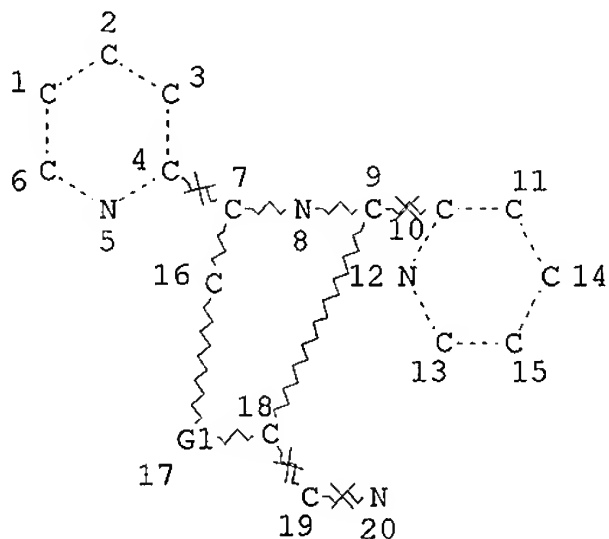
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NSPEC IS RC AT 7

NSPEC IS RC AT 8
 NSPEC IS RC AT 9
 DEFAULT MLEVEL IS ATOM
 DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
 RING(S) ARE ISOLATED OR EMBEDDED
 NUMBER OF NODES IS 15

STEREO ATTRIBUTES: NONE
 L5 20763 SEA FILE=REGISTRY SSS FUL L3
 L8 STR



REP G1=(0-3) C
 NODE ATTRIBUTES:
 NSPEC IS RC AT 19
 NSPEC IS RC AT 20
 DEFAULT MLEVEL IS ATOM
 MLEVEL IS CLASS AT 16 18
 DEFAULT ECLEVEL IS LIMITED
 ECOUNT IS UNLIMITED AT 16 18

GRAPH ATTRIBUTES:
 RING(S) ARE ISOLATED OR EMBEDDED
 NUMBER OF NODES IS 20

STEREO ATTRIBUTES: NONE
 L11 293 SEA FILE=REGISTRY SUB=L5 SSS FUL L8
 L13 43 SEA FILE=HCAPLUS ABB=ON L11
 L14 26 SEA FILE=HCAPLUS ABB=ON L13(L) (PREP OR IMF OR SPN)/RL
 L16 5142 SEA FILE=HCAPLUS ABB=ON L5
 L17 68 SEA FILE=HCAPLUS ABB=ON L16(L) BLEACH?
 L18 43 SEA FILE=HCAPLUS ABB=ON L17(L) (LIGAND? OR COMPLEX?)
 L19 31 SEA FILE=HCAPLUS ABB=ON L18(L) (PREP OR IMF OR SPN OR RCT OR
 RACT)/RL
 L20 30 SEA FILE=HCAPLUS ABB=ON L19 AND (CAT/RL OR CATALY?)
 L22 15 SEA FILE=REGISTRY ABB=ON L11 AND CLO4
 L23 5 SEA FILE=HCAPLUS ABB=ON L22
 L26 27 SEA FILE=HCAPLUS ABB=ON L20 NOT (L14 OR L23)

=> SEL HIT RN 1-27

E1 THROUGH E117 ASSIGNED

=> D L26 BIB ABS HITIND FHITSTR 1-27

Printed only one hit structure per record

L26 ANSWER 1 OF 27 HCAPLUS COPYRIGHT 2003 ACS on STN

AN 2003:511444 HCAPLUS

DN 139:87012

TI Support-fixed bleaching **catalyst** complex compounds suitable as **catalysts** for peroxide compounds

IN Gentshev, Pavel; Doering, Steve; Breyer, Jacques; Machin, Antonio

PA Henkel Kommanditgesellschaft Auf Aktien, Germany

SO PCT Int. Appl., 133 pp.

CODEN: PIXXD2

DT Patent

LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2003054128	A1	20030703	WO 2002-EP14290	20021216
	W: AU, BR, BY, CA, CN, DZ, HU, ID, IL, IN, JP, KR, MX, NO, NZ, PL, RO, RU, SG, UA, US, UZ, VN, YU, ZA				
	RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR				
	DE 10163331	A1	20030710	DE 2001-10163331	20011221
PRAI	DE 2001-10163331	A	20011221		
AB	The invention relates to support-fixed bleaching catalyst(s) suitable for the catalysis of peroxide compds., characterized in that the support-fixed bleaching catalyst(s) is/are covalently bonded to a support by means of at least one org. ligand of the bleaching catalyst . The bleaching catalyst(s) form(s) a complex with at least one transition metal. The invention further relates to support-fixed bleaching catalysts for the catalysis of peroxide compds., where at least one ligand, covalently bonded to a support, is a transition-metal-free ligand, which chelates with a transition metal, derived from another source, preferably from the bleaching compn. and/or added water and thus forms the complex with a transition metal. These bleaching catalysts are useful in laundering of colored fabrics at low temps. A typical catalyst was manufd. by reaction of chloromethylated polystyrene with bis(2-pyridylmethyl)amine, and complexing the products with Fe(ClO4)3.				
IC	ICM C11D003-39				
CC	ICS C11D003-37; C08F008-42; C08F008-32; A01N033-00; A61K007-00				
ST	46-5 (Surface Active Agents and Detergents)				
IT	Section cross-reference(s): 78				
IT	polymer transition metal complex bleaching catalyst colored fabric laundering; chloromethylated polystyrene bispyridylmethylamine iron complex bleaching catalyst				
IT	Group IIIA element compounds				
	RL: RCT (Reactant); RACT (Reactant or reagent)				
	(perborates; polymer-supported transition metal complexes as catalysts for peroxide bleaching agents)				
IT	Oxidation catalysts				
	Polymer-supported reagents				
	(polymer-supported transition metal complexes as catalysts for peroxide bleaching agents)				
IT	Transition metal complexes				
	RL: CAT (Catalyst use); IMF (Industrial manufacture); PREP (Preparation); USES (Uses)				

- (polymer-supported transition metal complexes as **catalysts** for peroxide bleaching agents)
- IT Peroxides, reactions
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (polymer-supported transition metal complexes as **catalysts** for peroxide bleaching agents)
- IT Fluoropolymers, uses
 RL: **CAT (Catalyst use)**; IMF (Industrial manufacture); PREP (Preparation); USES (Uses)
 (reaction products with amines, transition metal complexes; polymer-supported transition metal complexes as **catalysts** for peroxide bleaching agents)
- IT Polyamides, uses
 Polyamines
 Polyoxymethylenes, uses
 Polyoxyphenylenes
 Polysiloxanes, uses
 Polyurethanes, uses
 RL: **CAT (Catalyst use)**; IMF (Industrial manufacture); PREP (Preparation); USES (Uses)
 (reaction products, with amines, transition metal complexes; polymer-supported transition metal complexes as **catalysts** for peroxide bleaching agents)
- IT 1121-60-4, 2-Pyridylcarboxaldehyde 1122-72-1 3099-28-3, 2,6-Bis(chloromethyl)pyridine 4597-87-9
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (ligand precursor; polymer-supported transition metal complexes as **catalysts** for peroxide bleaching agents)
- IT **1539-42-0P**, Bis(2-pyridylmethyl)amine **86894-20-4P**, Bis(2-pyridylmethyl)[(6-methyl-2-pyridyl)methyl]amine **279216-12-5P**, Bis(2-pyridylmethyl)[[6-(chloromethyl)-2-pyridyl]methyl]amine
 RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
 (ligand; polymer-supported transition metal **complexes** as **catalysts** for peroxide bleaching agents)
- IT 79-41-4DP, Methacrylic acid, esters, polymers, reaction products with amines, transition metal complexes 993-02-2DP, Manganese triacetate, complexes with reaction products of chloromethylated polystyrene and amine ligands **1539-42-0DP**, Bis(2-pyridylmethyl)amine, reaction products with chloromethylated polystyrene, **complexes** with transition metals 4202-67-9DP, (2-Hydroxybenzyl)(2-hydroxyethyl)amine, reaction products with polymers, transition metal complexes 4730-54-5DP, 1,4,7-Triazacyclononane, reaction products with chloromethylated polystyrene, manganese complexes 6636-71-1DP, (2-Hydroxyethyl)(2-pyridylmethyl)amine, reaction products with polymers, transition metal complexes 6950-99-8DP, (3-Hydroxypropyl)(2-pyridylmethyl)amine, reaction products with polymers, transition metal complexes 6957-14-8DP, (2-Piperazinoethyl)(2-pyridylmethyl)amine, reaction products with polymers, transition metal complexes 7439-98-7DP, Molybdenum, complexes with reaction products of polymers and amine ligands 7440-18-8DP, Ruthenium, complexes with reaction products of polymers and amine ligands 7440-32-6DP, Titanium, complexes with reaction products of polymers and amine ligands 7440-48-4DP, Cobalt, complexes with reaction products of polymers and amine ligands 7440-50-8DP, Copper, complexes with reaction products of polymers and amine ligands 7440-62-2DP, Vanadium, complexes with reaction products of polymers and amine ligands 9002-81-7DP, Polyformaldehyde, reaction products with amines, transition metal complexes 9002-84-0DP, reaction products with amines, transition metal

complexes 9002-85-1DP, Polyvinylidene chloride, reaction products with amines, transition metal complexes 9002-86-2DP, Polyvinylchloride, reaction products with amines, transition metal complexes 9002-88-4DP, Polyethylene, reaction products with amines, transition metal complexes 9002-89-5DP, Polyvinyl alcohol, reaction products with amines, transition metal complexes 9002-98-6DP, Polyethylenimine, reaction products with amines, transition metal complexes 9003-07-0DP, Polypropylene, reaction products with amines, transition metal complexes 9003-17-2DP, Polybutadiene, reaction products with amines, transition metal complexes 9003-27-4DP, Polyisobutylene, reaction products with amines, transition metal complexes 9003-53-6DP, Polystyrene, chloromethylated, reaction products with amine ligands, complexes with transition metals 9004-34-6DP, Cellulose, reaction products with amines, transition metal complexes 9012-76-4DP, Chitosan, reaction products with amines, transition metal complexes 9063-70-1DP, Polychlorobutadiene, reaction products with amines, transition metal complexes 13537-24-1DP, Ferric perchlorate, complexes with reaction products of chloromethylated polystyrene and amine ligands 13770-16-6DP, Manganese perchlorate, complexes with reaction products of chloromethylated polystyrene and amine ligands 15395-61-6DP, (2-Pyridylmethyl)[2-(2-pyridyl)ethyl]amine, reaction products with polymers, transition metal complexes 22540-55-2DP, (2-Hydroxybenzyl)[2-(2-pyridyl)ethyl]amine, reaction products with polymers, transition metal complexes 25014-41-9DP, Polyacrylonitrile, reaction products with amines, transition metal complexes 25599-08-0DP, Tris[(6-methyl-2-pyridyl)methyl]amine, reaction products with polymers, transition metal **complexes** 25599-10-4DP, Bis[(6-Methyl-2-pyridyl)methyl](2-pyridylmethyl)amine, reaction products with polymers, transition metal **complexes** 27528-50-3DP, (2-Hydroxybenzyl)(2-morpholinoethyl)amine, reaction products with polymers, transition metal complexes 39342-70-6DP, Poly[oxy(dimethylphenylene)], reaction products with amines, transition metal complexes 39342-71-7DP, Poly(dimethylphenylene oxide), reaction products with amines, transition metal complexes 56098-51-2DP, [3-(N,N-Dimethylamino)propyl](2-pyridylmethyl)amine, reaction products with polymers, transition metal complexes 63671-68-1DP, (2-Hydroxybenzyl)(2-pyridylmethyl)amine, reaction products with polymers, transition metal complexes 83144-89-2DP, N,N,N',N'-Tetrakis(2-benzimidazolylmethyl)-1,3-diamino-2-propanol, reaction products with polymers, transition metal complexes 127666-77-7DP, [(6-Methyl-2-pyridyl)methyl][2-(2-pyridyl)ethyl][(2-pyridyl)methyl]amine, reaction products with polymers, transition metal **complexes** 133280-80-5DP, (2-Pyridylmethyl)[2-(N,N-dimethylamino)ethyl]amine, reaction products with polymers, transition metal complexes 151103-52-5DP, N,N,N',N'-Tetrakis[(1-methyl)-2-imidazolylmethyl]-1,3-diamino-2-propanol, reaction products with polymers, transition metal complexes 158900-81-3DP, [2-(N,N-Dimethylamino)ethyl](2-hydroxybenzyl)amine, reaction products with polymers, transition metal complexes 163165-83-1DP, (2-Pyridylmethyl)(2-pyrrolidinoethyl)amine, reaction products with polymers, transition metal complexes 211489-46-2DP, (2-Hydroxybenzyl)(3-hydroxypropyl)amine, reaction products with polymers, transition metal complexes 225795-36-8DP, reaction products with polymers, transition metal complexes 260395-26-4DP, N-Methyl-N,N',N'-tris(3-methyl-2-pyridylmethyl)ethylenediamine, reaction products with polymers, transition metal **complexes** 260395-27-5DP, N,N',N'-Tris(3-methyl-2-pyridylmethyl)-N-ethylethylenediamine, reaction products with polymers, transition metal **complexes** 279216-12-5DP, reaction products with chloromethylated polystyrene, **complexes** with transition metals

286832-15-3DP, N,N,N',N'-Tetrakis[1-(2-hydroxyethyl)-1H-benzimidazol-2-ylmethyl]-1,3-diamino-2-propanol, reaction products with polymers, transition metal complexes 339987-91-6DP, N,N,N',N'-Tetrakis[2-(5,6-dimethyl)benzimidazolylmethyl]-1,3-diamino-2-propanol, reaction products with polymers, transition metal complexes 553668-12-5DP, (2-Morpholinoethyl)(2-pyridylmethyl)amine, reaction products with polymers, transition metal complexes 553668-13-6DP, (2-Piperidinoethyl)(2-pyridylmethyl)amine, reaction products with polymers, transition metal complexes 553668-14-7DP, (2-Hydroxybenzyl)(2-piperidinoethyl)amine, reaction products with polymers, transition metal complexes 553668-15-8DP, (2-Hydroxybenzyl)(2-pyrrolidinoethyl)amine, reaction products with polymers, transition metal complexes 553668-16-9DP, (2-Hydroxybenzyl)(2-piperazinoethyl)amine, reaction products with polymers, transition metal complexes **553668-17-0DP**, [(Benzimidazol-2-yl)methyl][(6-methyl-2-pyridyl)methyl][(2-pyridyl)methyl]amine, reaction products with polymers, transition metal complexes 553668-18-1DP, Bis[(Benzimidazol-2-yl)methyl][(6-methyl-2-pyridyl)methyl]amine, reaction products with polymers, transition metal complexes **553668-19-2DP**, reaction products with polymers, transition metal complexes 553668-20-5DP, Bis[(5,6-dimethylbenzimidazol-2-yl)methyl][(6-Methyl-2-pyridyl)methyl]amine, reaction products with polymers, transition metal complexes **553668-21-6DP**, reaction products with polymers, transition metal complexes 553668-22-7DP, Bis(2-quinolyl)[(6-methyl-2-pyridyl)methyl]amine, reaction products with polymers, transition metal complexes **553668-23-8DP**, (2-Morpholinoethyl)[(6-methyl-2-pyridyl)methyl][(2-pyridyl)methyl]amine, reaction products with polymers, transition metal complexes **553668-24-9DP**, [(6-Methyl-2-pyridyl)methyl](2-piperidinoethyl)[(2-pyridyl)methyl]amine, reaction products with polymers, transition metal complexes **553668-25-0DP**, Bis[2-(2-pyridyl)ethyl][(6-Methyl-2-pyridyl)methyl]amine, reaction products with polymers, transition metal complexes

RL: CAT (Catalyst use); IMF (Industrial manufacture);

PREP (Preparation); USES (Uses)

(polymer-supported transition metal complexes as catalysts for peroxide bleaching agents)

IT 553668-11-4DP, Bis(2-pyridylmethyl)[[6-(hydroxymethyl)-2-pyridyl]methyl]amine sodium salt, reaction products with chloromethylated polystyrene

RL: IMF (Industrial manufacture); PREP (Preparation)

(polymer-supported transition metal complexes as catalysts for peroxide bleaching agents)

IT 75-13-8DP, Isocyanic acid, esters, polymers

RL: CAT (Catalyst use); IMF (Industrial manufacture); PREP (Preparation); USES (Uses)

(reaction products, with amines, transition metal complexes; polymer-supported transition metal complexes as catalysts for peroxide bleaching agents)

IT 1539-42-0P, Bis(2-pyridylmethyl)amine

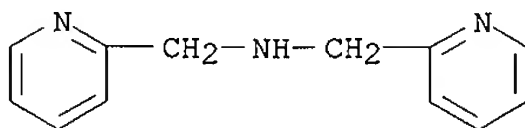
RL: IMF (Industrial manufacture); PREP (Preparation);

PREP (Preparation); RACT (Reactant or reagent)

(ligand; polymer-supported transition metal complexes as catalysts for peroxide bleaching agents)

RN 1539-42-0 HCAPLUS

CN 2-Pyridinemethanamine, N-(2-pyridinylmethyl)- (9CI) (CA INDEX NAME)



RE.CNT 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L26 ANSWER 2 OF 27 HCAPLUS COPYRIGHT 2003 ACS on STN
AN 2003:203385 HCAPLUS
DN 138:223311
TI Enzymatic detergent compositions containing transition metal complex as
bleaching **catalyst**
IN Hage, Ronald; Klugkist, Jan; Swarthoff, Ton; Van Der Waal, Patrick;
Ehrnsperger, Eric Charles; Bae-Lee, Myongsuk
PA Unilever Home & Personal Care USA, Division of Conopco, Inc., USA
SO U.S. Pat. Appl. Publ., 18 pp., Cont.-in-part of U.S. Ser. No. 13,755.
CODEN: USXXCO

DT Patent
LA English

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2003050211	A1	20030313	US 2002-151628	20020520
	US 2002137654	A1	20020926	US 2001-13755	20011211
PRAI	EP 2000-204514	A	20001214		
	US 2001-13755	A2	20011211		
OS	MARPAT 138:223311				
AB	An enzymic detergent compn. comprises: (a) surfactant; (b) 10-20,000 LU per g of the detergent compn. of a lipolytic enzyme obtainable from Humicola lanuginosa, Pseudomonas pseudoalcaligenes, Rhizomucor miehei and (c) a non-cross-bridged polydentate N-donor ligand capable of forming a complex with a transition metal, wherein said complex is capable of catalyzing the bleaching of stains on fabrics by means of atm. oxygen.				
IC	ICM C11D003-00				
NCL	510305000; 510311000; 510392000; 510376000				
CC	46-5 (Surface Active Agents and Detergents)				
ST	lipolytic enzyme bleach stain; transition metal complex polydentate nitrogen donor ligand catalyst				
IT	Detergents (enzyme-contg.; enzymic detergent compns. contg. transition metal complex as bleaching catalyst)				
IT	Oxidation catalysts (enzymic detergent compns. contg. transition metal complex)				
IT	Pseudomonas pseudoalcaligenes Rhizomucor miehei Thermomyces lanuginosus (enzymic detergent compns. contg. transition metal complex as bleaching catalyst)				
IT	Detergents (laundry, enzyme-contg.; enzymic detergent compns. contg. transition metal complex as bleaching catalyst)				
IT	Enzymes, biological studies RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)				

(lytic, lipolytic; enzymic detergent compns. contg. transition metal complex as bleaching **catalyst**)

IT 9001-62-1, Lipolase 100T 51377-41-4, Cutinase
 RL: BUU (Biological use, unclassified); PRP (Properties); BIOL (Biological study); USES (Uses)
 (enzymic detergent compns. contg. transition metal complex as bleaching **catalyst**)

IT 114673-77-7 167695-89-8 250670-73-6 260395-33-3 260395-37-7
 260431-32-1 302543-53-9
 RL: CAT (Catalyst use); PRP (Properties); USES (Uses)
 (enzymic detergent compns. contg. transition metal complex as bleaching **catalyst**)

IT 328564-06-3P 329279-17-6P
 RL: CAT (Catalyst use); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)
 (enzymic detergent compns. contg. transition metal complex as bleaching **catalyst**)

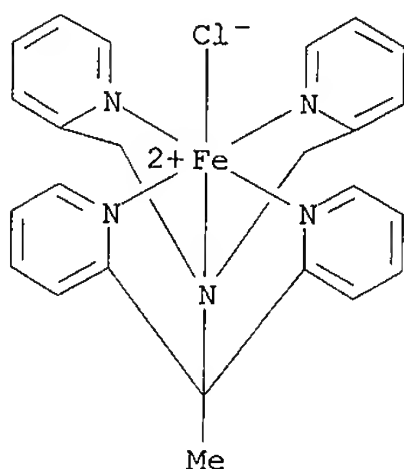
IT 253669-69-1P, 1-Ethyl-1,4,7-triazacyclononane 329279-22-3P
 RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (enzymic detergent compns. contg. transition metal complex as bleaching **catalyst**)

IT 74-96-4, Ethylbromide 91-22-5, Quinoline, reactions 122-51-0, Orthoformicacidtriethylester 128-08-5, N-Bromosuccinimide 4730-54-5, 1,4,7-Triazacyclononane 13478-10-9, Iron(II) chloride tetrahydrate 223504-10-7, N,N-Bis(pyridin-2-ylmethyl)-1,1-bis(pyridin-2-yl)-1-aminoethane
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (enzymic detergent compns. contg. transition metal complex as bleaching **catalyst**)

IT 5632-15-5P 67705-38-8P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (enzymic detergent compns. contg. transition metal complex as bleaching **catalyst**)

IT 328564-06-3P
 RL: RCT (Reactant); RACT (Reactant or reagent); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)
 (enzymic detergent compns. contg. transition metal complex as bleaching **catalyst**)

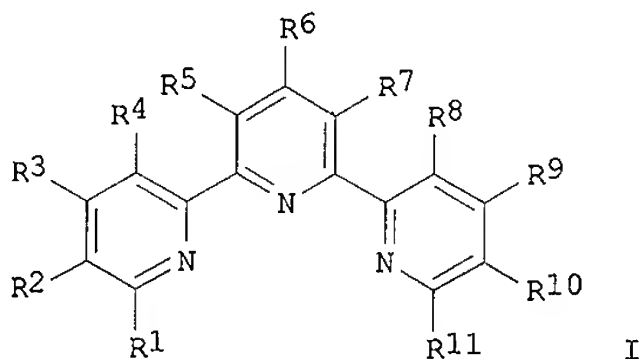
RN 328564-06-3 HCAPLUS
 CN Iron(1+), chloro[.alpha.-methyl-.alpha.-(2-pyridinyl-.kappa.N)-N,N-bis[(2-pyridinyl-.kappa.N)methyl]-2-pyridinemethanamine-.kappa.N1,.kappa.N2]-, chloride, (OC-6-43)- (9CI) (CA INDEX NAME)



● Cl⁻

L26 ANSWER 3 OF 27 HCAPLUS COPYRIGHT 2003 ACS on STN
 AN 2002:849769 HCAPLUS
 DN 137:354716
 TI Use of metal complex compounds as oxidation **catalysts**, ligands,
 and use in bleach agents
 IN Schlingloff, Gunther; Wieprecht, Torsten; Bachmann, Frank; Dannacher,
 Joseph; Dubs, Marie-Josée; Hazenkamp, Menno; Richter, Grit; Schmidt,
 Brigitte; Schneider, Albert; Weingartner, Peter
 PA Ciba Specialty Chemicals Holding Inc., Switz.
 SO PCT Int. Appl., 64 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002088289	A2	20021107	WO 2002-EP4572	20020425
	WO 2002088289	A3	20030227		
	W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
	RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
PRAI	EP 2001-810425	A	20010430		
	CH 2001-2278	A	20011213		
OS	MARPAT 137:354716				
GI					



AB Metal complex compds. [LnMmXp]zYq [M = Mn, Ti, Fe, Co, Ni or Cu, X = coordinating or bridging radical, n and m = 1-8, p = 0-32, z = charge of the metal complex, y is a counterion, q = z/(charge Y), and L is a ligand I where R1-11 = H; unsubstituted or substituted C1-C18 alkyl or aryl; cyano; halogen; nitro; -COOR12 or -SO3R12 where R12 is in each case H, a cation or unsubstituted or substituted C1-C18alkyl or aryl; -SR13, -SO2R13 or -OR13 where R13 is in each case H or unsubstituted or substituted C1-C18alkyl or aryl; -N(R13)-NR'13R13; -NR14R15 or -NR14R15R16 where R14, R15 and R16 = H or unsubstituted or substituted C1-C18-alkyl or aryl, or R14 and R15 together with the N atom bonding them form an unsubstituted or substituted 5-, 6- or 7-membered ring which may optionally contain further hetero atoms; providing R1-11 are not simultaneously H], are used as **catalysts** for peroxide bleaching agents.

IC ICM C11D003-39

ICS B01J031-18; D21C009-10; D21C009-16; C07D213-70; C07D213-61; C07D213-77; C07D213-74; C07D213-30; C07D301-12; C07F013-00

CC 46-5 (Surface Active Agents and Detergents)

Section cross-reference(s): 43, 45, 67

ST metal terpyridine complex peroxide bleach **catalyst**

IT Bleaching agents

Disinfectants

(contg. metal terpyridine complexes as oxidn. **catalysts** for stain removal in fabrics or hard surfaces)

IT Epoxidation **catalysts**

(metal terpyridine complexes as oxidn. **catalysts**)

IT Cellulose pulp

(metal terpyridine complexes as oxidn. **catalysts** for bleaching)

IT Bleaching

Oxidation **catalysts**

(metal terpyridine complexes as oxidn. **catalysts** for stain removal in fabrics or hard surfaces)

IT Detergents

(peroxide-contg.; contg. metal terpyridine complexes as oxidn. **catalysts** for stain removal in fabrics or hard surfaces)

IT Ligands

RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)

(terpyridine; in manuf. of metal complexes as oxidn. **catalysts**)

IT 140-88-5, Ethyl acrylate

RL: RCT (Reactant); RACT (Reactant or reagent)

(epoxidn.; metal terpyridine complexes as oxidn. **catalysts** for)

IT 24484-93-3P 71777-70-3P 474490-79-4P 474490-81-8P 474490-83-0P

474490-85-2P

RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)

(intermediate for ligand; metal terpyridine complexes as oxidn.

catalysts for bleaching)

- IT 89972-77-0P, 4'-p-Tolyl-[2,2':6',2'']terpyridine
 97238-12-5P, 4,4',4'''-Trichloro[2,2':6',2'']terpyridine
 105374-69-4P 128143-88-4P, [2,2':6',2'']-Terpyridin]-
 4'(1'H)-one 128143-89-5P, 4'-Chloro-[2,2':6',2'']terpyridine
 145533-40-0P, 4'-Ethoxy-[2,2':6',2'']terpyridine
 157557-32-9P, 4'-(4-tert-Butylphenyl)-[2,2':6',2'']terpyridine
 158014-68-7P 162151-66-8P 162151-67-9P
 183112-84-7P 193944-61-5P 193945-29-8P
 279674-33-8P 474490-62-5P 474490-65-8P
 474490-68-1P 474490-70-5P 474490-72-7P
 474490-74-9P 474490-87-4P 474490-89-6P
 474490-92-1P 474490-94-3P 474490-96-5P
 474490-98-7P 474491-01-5P 474491-03-7P
 474491-05-9P 474491-07-1P 474491-09-3P

RL: IMF (Industrial manufacture); RCT (Reactant);

PREP (Preparation); RACT (Reactant or reagent)

(ligand; metal terpyridine complexes as oxidn.

catalysts for bleaching)

IT 4660-80-4P

RL: IMF (Industrial manufacture); PREP (Preparation)

(metal terpyridine complexes as oxidn. **catalysts** for)

- IT 14854-49-0 474491-31-1 474491-33-3 474491-35-5 474491-37-7
 474491-39-9 474491-41-3 474491-43-5 474494-43-4

RL: CAT (Catalyst use); USES (Uses)

(metal terpyridine complexes as oxidn. **catalysts** for
 bleaching)

IT 474491-19-5P 474491-21-9P 474491-23-1P

474491-25-3P 474491-27-5P

RL: CAT (Catalyst use); IMF (Industrial manufacture);

PREP (Preparation); USES (Uses)

(metal terpyridine complexes as oxidn. **catalysts**
 for bleaching)

IT 128143-87-3P

RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)

(metal terpyridine complexes as oxidn. **catalysts** for
 bleaching)

- IT 74-88-4, Methyl iodide, reactions 98-98-6, Pyridine-2-carboxylic acid
 109-83-1, N-Methylaminoethanol 111-42-2, Diethanolamine, reactions
 123-75-1, Pyrrolidine, reactions 141-52-6, Sodium ethanolate 302-01-2,
 Hydrazine, reactions 939-97-9, 4-tert-Butylbenzaldehyde 1122-62-9,
 2-Acetylpyridine 2524-52-9, Pyridine-2-carboxylic acid ethyl ester
 5720-06-9, 2-Methoxyphenylboronic acid 7719-09-7, Thionyl chloride
 10026-13-8, Phosphorus pentachloride 13446-34-9, Manganese chloride
 tetrahydrate 100366-66-3

RL: RCT (Reactant); RACT (Reactant or reagent)

(metal terpyridine complexes as oxidn. **catalysts**
 for bleaching)

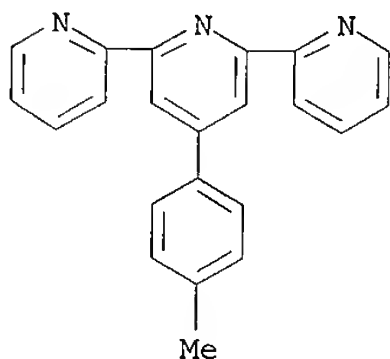
IT 89972-77-0P, 4'-p-Tolyl-[2,2':6',2'']terpyridine

RL: RCT (Reactant); RACT (Reactant or reagent);

PREP (Preparation); RACT (Reactant or reagent)

(ligand; metal terpyridine complexes as oxidn.
catalysts for bleaching)

RN 89972-77-0 HCAPLUS
CN 2,2':6',2''-Terpyridine, 4'-(4-methylphenyl)- (9CI) (CA INDEX NAME)



L26 ANSWER 4 OF 27 HCAPLUS COPYRIGHT 2003 ACS on STN
AN 2002:793733 HCAPLUS
DN 137:312744
TI Composition and method for air bleaching a substrate via a transitional metal complex **catalyst**
IN Chapple, Andrew Paul; Hermant, Roelant Mathijs; Hodgkinson, Kerry Elizabeth
PA Unilever PLC, UK; Unilever NV; Hindustan Lever Limited
SO PCT Int. Appl., 38 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002081613	A1	20021017	WO 2002-EP3083	20020315
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	US 2003036492	A1	20030220	US 2002-117681	20020405
PRAI	GB 2001-8737	A	20010406		

AB A bleaching compn. contains a ligand having at least one heteroarom. substituent that forms a complex with a transition metal or a transition metal complex thereof, and an anionic surfactant having a crit. micelle concn. value of 3×10^{-4} M or less. The bleaching compn. forms in an aq. soln. an air bleaching medium that has less than 1% of a peroxy species present.

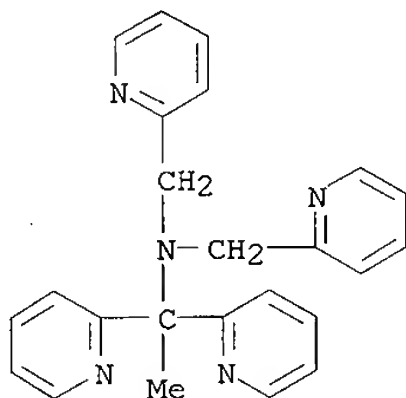
IC ICM C11D003-39
CC 46-5 (Surface Active Agents and Detergents)
ST air bleaching transitional metal **catalyst** detergent compn
IT Oxidation **catalysts**
(compn. and method for air bleaching a substrate)
IT 328564-06-3P
RL: **CAT (Catalyst use)**; IMF (Industrial manufacture); PRP (Properties); PREP (Preparation); USES (Uses)
(compn. and method for air bleaching a substrate)

IT 223504-10-7, N,N-Bis(pyridin-2-ylmethyl)-1,1-bis(pyridin-2-yl)-1-aminoethane
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (ligand; compn. and method for air bleaching a substrate)

IT 223504-10-7, N,N-Bis(pyridin-2-ylmethyl)-1,1-bis(pyridin-2-yl)-1-aminoethane
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (ligand; compn. and method for air bleaching a substrate)

RN 223504-10-7 HCAPLUS

CN 2-Pyridinemethanamine, .alpha.-methyl-.alpha.-2-pyridinyl-N,N-bis(2-pyridinylmethyl)- (9CI) (CA INDEX NAME)



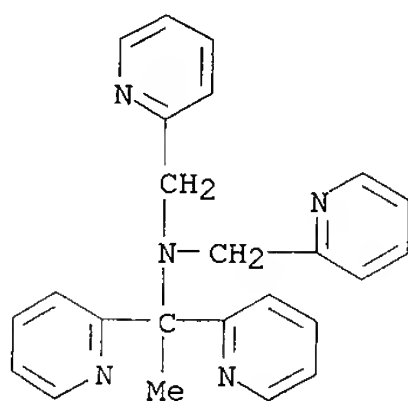
RE.CNT 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L26 ANSWER 5 OF 27 HCAPLUS COPYRIGHT 2003 ACS on STN
 AN 2002:676135 HCAPLUS
 DN 137:203056
 TI Unit dose cleaning product
 IN Gupta, Neeraj; Hage, Ronald; Veerman, Simon Marinus
 PA Unilever PLC, UK; Unilever NV; Hindustan Lever Limited
 SO PCT Int. Appl., 71 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002068577	A1	20020906	WO 2002-EP1789	20020220
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
US 2002187909	A1	20021212	US 2002-84809	20020226
PRAI GB 2001-4979	A	20010228		
OS	MARPAT 137:203056			
AB	A unit dose cleaning product comprises a capsule formed of a material			

capable of dissolving, disintegrating or dispersing in a wash liquor, and filled with a substantially nonaq. liq. cleaning compn. including an org. substance which forms a complex with a transition metal, the complex being capable of **catalyzing** bleaching of a substrate by atm. O.

- IC ICM C11D017-04
- ICS C11D017-00; C11D003-39
- CC 46-6 (Surface Active Agents and Detergents)
Section cross-reference(s): 67
- ST encapsulated bleach unit dose laundry dishwashing detergent; iron complex bleach **catalyst** detergent
- IT Bleaching agents
(**catalysts**; tableted or envelope nonaq. cleaning product contg. encapsulated bleach **catalyst** for fabric or dishware)
- IT Detergents
(dishwashing; tableted or envelope nonaq. cleaning product contg. encapsulated bleach **catalyst** for)
- IT Detergents
(laundry; tableted or envelope nonaq. cleaning product contg. encapsulated bleach **catalyst** for)
- IT **Catalysts**
(tableted or envelope nonaq. cleaning product contg. encapsulated bleach **catalyst** for fabric or dishware)
- IT 9002-89-5, Poly(vinyl alcohol)
RL: TEM (Technical or engineered material use); USES (Uses)
(film envelope; tableted or envelope nonaq. cleaning product contg. encapsulated bleach **catalyst** for fabric or dishware)
- IT 223504-10-7
RL: RCT (Reactant); RACT (Reactant or reagent)
(**ligand**; tableted or envelope nonaq. cleaning product contg. encapsulated bleach **catalyst** for fabric or dishware)
- IT 328564-06-3P
RL: CAT (Catalyst use); IMF (Industrial manufacture); PREP (Preparation); USES (Uses)
(tableted or envelope nonaq. cleaning product contg. encapsulated bleach **catalyst** for fabric or dishware)
- IT 7758-94-3, Iron chloride (FeCl₂)
RL: RCT (Reactant); RACT (Reactant or reagent)
(tableted or envelope nonaq. cleaning product contg. encapsulated bleach **catalyst** for fabric or dishware)
- IT 223504-10-7
RL: RCT (Reactant); RACT (Reactant or reagent)
(**ligand**; tableted or envelope nonaq. cleaning product contg. encapsulated bleach **catalyst** for fabric or dishware)
- RN 223504-10-7 HCAPLUS
- CN 2-Pyridinemethanamine, .alpha.-methyl-.alpha.-2-pyridinyl-N,N-bis(2-pyridinylmethyl)- (9CI) (CA INDEX NAME)



RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L26 ANSWER 6 OF 27 HCAPLUS COPYRIGHT 2003 ACS on STN
AN 2002:291689 HCAPLUS
DN 136:311577
TI Transition metal complexes with polydentate ligands for reinforcing the
bleaching and delignifying effects of peroxy compounds
IN Jakob, Harald; Kunz, Ulrike
PA Degussa A.-G., Germany
SO Ger. Offen., 12 pp.
CODEN: GWXXBX
DT Patent
LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 10051317	A1	20020418	DE 2000-10051317	20001017
	EP 1199402	A2	20020424	EP 2001-120456	20010828
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
	NO 2001005027	A	20020418	NO 2001-5027	20011016
	ZA 2001008492	A	20020606	ZA 2001-8492	20011016
	BR 2001004611	A	20020604	BR 2001-4611	20011017
	US 2002066542	A1	20020606	US 2001-978101	20011017
PRAI	DE 2000-10051317	A	20001017		
OS	MARPAT 136:311577				
AB	The title compds., which increase selectivity in the purifn. of lignin-contg. fibers, have the general formula [LMXp]zYq (L = polydentate polyamine of specified structure, M = transition metal, X = anionic or neutral coordinating species, Y = counter-ion or -mol., p = 0-4, q = z/charge on Y, z = charge of complex). Mixing a MeOH soln. of 3.89 mmol N,N-bis(2-pyridylmethyl)bis-2-pyridylmethylamine (I) with an aq. soln. of 3.89 mmol CoCl2.6H2O and 7.78 mmol NaClO4 at room temp. and passing air through the mixt. gently for 2 h gave 92% [(CoI)2O2]Cl2(ClO4)2 (II). Treating 30 g bone-dry cellulose with an aq. soln. of 70 ppm II, 4.0% H2O2, and 2.0% NaOH gave pulp with kappa no. 13.6, and delignification 42.1%; vs. 14.7 and 37.4, resp., in the absence of II.				
IC	ICM D21C009-10 ICS D21C009-16				
CC	43-6 (Cellulose, Lignin, Paper, and Other Wood Products) Section cross-reference(s): 67				
ST	catalyst bleaching delignification cellulose pulp; transition metal complex polydentate catalyst ; cobalt complex polydentate				

catalyst; pyridylmethylanine deriv tetradentate complex
catalyst; polyamine tetradentate complex **catalyst**

IT Pulp bleaching
 (**catalysts**; transition metal complexes with polydentate ligands for reinforcing the bleaching and delignifying effects of peroxy compds.)

IT Amines, uses
 RL: **CAT (Catalyst use)**; USES (Uses)
 (polyamines, nonpolymeric, polydentate, transition metal complexes; transition metal complexes with polydentate ligands for reinforcing the bleaching and delignifying effects of peroxy compds.)

IT Transition metals, uses
 RL: **CAT (Catalyst use)**; USES (Uses)
 (polydentate polyamine complexes; transition metal complexes with polydentate ligands for reinforcing the bleaching and delignifying effects of peroxy compds.)

IT Cellulose pulp
 Oxidation **catalysts**
 (transition metal complexes with polydentate ligands for reinforcing the bleaching and delignifying effects of peroxy compds.)

IT 223504-12-9 412048-42-1 412048-43-2
 RL: **CAT (Catalyst use)**; USES (Uses)
 (transition metal complexes with polydentate ligands for reinforcing the bleaching and delignifying effects of peroxy compds.)

IT 412048-41-0P
 RL: **CAT (Catalyst use)**; IMF (Industrial manufacture);
 PREP (Preparation); USES (Uses)
 (transition metal **complexes** with polydentate **ligands** for reinforcing the **bleaching** and delignifying effects of peroxy compds.)

IT 412048-41-0P
 RL: **CAT (Catalyst use)**; IMF (Industrial manufacture);
 PREP (Preparation); USES (Uses)
 (transition metal **complexes** with polydentate **ligands** for reinforcing the **bleaching** and delignifying effects of peroxy compds.)

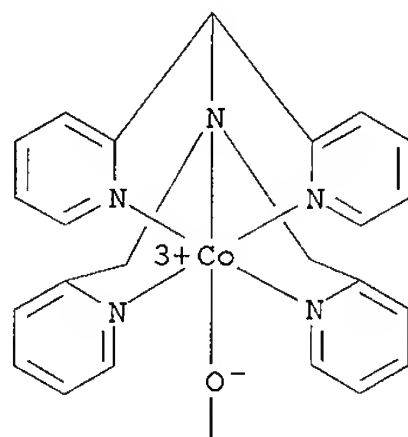
RN 412048-41-0 HCAPLUS

CN Cobalt(4+), [μ -(peroxy- κ O: κ O')]bis[α -(2-pyridinyl- κ N)-N,N-bis[(2-pyridinyl- κ N)methyl]-2-pyridinemethanamine- κ N1, κ N2]di-, dichloride diperchlorate (9CI) (CA INDEX NAME)

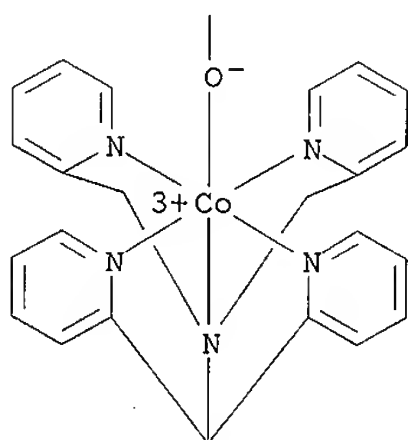
CM 1

CRN 412048-40-9
 CMF C46 H42 Co2 N10 O2
 CCI CCS

PAGE 1-A

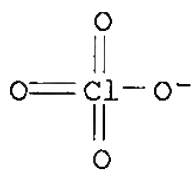


PAGE 2-A



CM 2

CRN 14797-73-0
CMF Cl O4



L26 ANSWER 7 OF 27 HCAPLUS COPYRIGHT 2003 ACS on STN
 AN 2001:661546 HCAPLUS
 DN 135:212629
 TI Laundry bleaching comprising a dye transfer inhibiting agent and a transition metal complex bleaching **catalyst**
 IN Van Deurzen, Maria Petra Johanna; Hage, Ronald; Veerman, Simon Marinus
 PA Unilever Plc, UK; Unilever NV; Hindustan Lever Ltd.
 SO PCT Int. Appl., 91 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001064828	A1	20010907	WO 2001-EP408	20010115
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	US 2002010121	A1	20020124	US 2001-795810	20010228
PRAI	GB 2000-5089	A	20000301		
OS	MARPAT 135:212629				
AB	A bleaching compn. for laundry fabrics is provided, comprising: hydrogen peroxide or a source of hydrogen peroxide; a bleach catalyst comprising a ligand which forms a complex with a transition metal, the complex catalyzing bleaching of stains in the presence of peroxygen bleach or a peroxy-based or -generating bleach system; and a dye transfer inhibiting agent. The bleaching compn. provides effective bleaching performance on fabric stains without unacceptable transfer of dyes between fabrics.				
IC	ICM C11D003-39				
	ICS C11D003-37				
CC	46-5 (Surface Active Agents and Detergents)				
	Section cross-reference(s): 40				
ST	bleaching laundry dye transfer inhibiting stain removing compn; transition metal complex bleaching catalyst				
IT	Bleaching agents				
	Oxidation catalysts				
	(laundry bleaching comprising a dye transfer inhibiting agent and a transition metal complex bleaching catalyst)				
IT	Transition metal complexes				
	RL: CAT (Catalyst use) ; SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (laundry bleaching comprising a dye transfer inhibiting agent and a				

transition metal complex bleaching **catalyst**)

IT Detergents
(stain removers; laundry bleaching comprising a dye transfer inhibiting agent and a transition metal complex bleaching **catalyst**)

IT 260395-33-3P 302541-71-5P 302541-84-0P
328564-06-3P 357967-50-1P 358334-39-1P
RL: CAT (Catalyst use); SPN (Synthetic preparation);
TEM (Technical or engineered material use); PREP (Preparation);
USES (Uses)
(bleaching **catalyst**; laundry bleaching comprising a dye transfer inhibiting agent and a transition metal complex bleaching **catalyst**)

IT 9002-98-6D, derivs. 9003-39-8, Polyvinylpyrrolidone 9045-81-2, Polyvinylpyridine N-oxide 25232-42-2, Polyvinylimidazole 29297-55-0, N-Vinylimidazole N-vinylpyrrolidone copolymer
RL: TEM (Technical or engineered material use); USES (Uses)
(dye transfer inhibiting agent; in laundry bleaching comprising a dye transfer inhibiting agent and a transition metal complex bleaching **catalyst**)

IT 223504-10-7
RL: RCT (Reactant); TEM (Technical or engineered material use);
RACT (Reactant or reagent); USES (Uses)
(in laundry bleaching comprising a dye transfer inhibiting agent and a transition metal complex bleaching **catalyst**)

IT 3313-92-6, Sodium percarbonate 7632-04-4, Sodium perborate 7722-84-1, Hydrogen peroxide, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(in laundry bleaching comprising a dye transfer inhibiting agent and a transition metal complex bleaching **catalyst**)

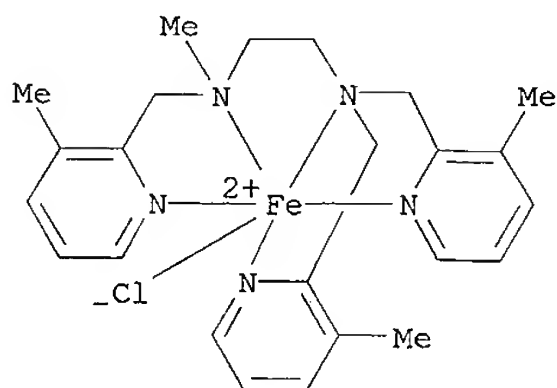
IT 61920-87-4P
RL: CAT (Catalyst use); SPN (Synthetic preparation);
TEM (Technical or engineered material use); PREP (Preparation);
USES (Uses)
(laundry bleaching comprising a dye transfer inhibiting agent and a transition metal complex bleaching **catalyst**)

IT 260395-33-3P
RL: CAT (Catalyst use); SPN (Synthetic preparation);
RACT (Reactant or reagent); PREP (Preparation); USES (Uses)
(bleaching **catalyst**; laundry bleaching comprising a dye transfer inhibiting agent and a transition metal complex bleaching **catalyst**)

RN 260395-33-3 HCAPLUS
CN Iron(1+), chloro[N-methyl-N,N',N'-tris[(3-methyl-2-pyridinyl-.kappa.N)methyl]-1,2-ethanediamine-.kappa.N,.kappa.N']-, hexafluorophosphate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 260395-32-2
CMF C24 H31 Cl Fe N5
CCI CCS

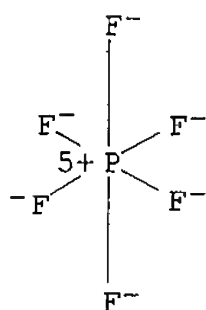


CM 2

CRN 16919-18-9

CMF F6 P

CCI CCS



RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L26 ANSWER 8 OF 27 HCAPLUS COPYRIGHT 2003 ACS on STN
AN 2001:661545 HCAPLUS
DN 135:197250
TI Oxygen-peroxyl competing bleaching laundry composition with transition
metal complex **catalyst**
IN Hage, Ronald; Swarthoff, Ton; Tetard, David; Thornthwaite, David William
PA Unilever Plc, UK; Unilever Nv; Hindustan Lever Ltd.
SO PCT Int. Appl., 86 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001064827	A1	20010907	WO 2001-EP1694	20010215
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,				

DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,
 BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

BR 2001008890 A 20021105 BR 2001-8890 20010215
 EP 1283861 A1 20030219 EP 2001-923577 20010215

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
 IE, SI, LT, LV, FI, RO, MK, CY, AL, TR

US 2002013247 A1 20020131 US 2001-796210 20010228

PRAI GB 2000-4988 A 20000301
 WO 2001-EP1694 W 20010215

AB An oxygen-peroxyl competing bleaching laundry compn. for use in aq. wash
 medium for **catalytically** bleaching a substrate, comprises (i) an
 org. substance which forms a complex with a transition metal, which is
 capable of **catalyzing** bleaching of the substrate by atm. oxygen
 and a peroxyl species, (ii) a peroxyl bleaching agent selected from the
 group consisting of a peroxyl species and a peroxyl species precursor,
 wherein the application of a unit dose of the oxygen-peroxyl competing
 bleaching compn. provides a concn. of peroxyl species permitting dual
 bleaching during a wash.

IC ICM C11D003-39
 ICS C11D017-00

CC 46-5 (Surface Active Agents and Detergents)

ST atm oxygen peroxyl transition metal complex **catalyst** bleach;
 dual bleaching laundry compn

IT Detergents
 (laundry; oxygen-peroxyl competing bleaching laundry compn. with
 transition metal complex **catalyst**)

IT Bleaching agents
 Oxidation **catalysts**
 (oxygen-peroxyl competing bleaching laundry compn. with transition
 metal complex **catalyst**)

IT **328564-06-3P**
 RL: PRP (Properties); SPN (Synthetic preparation); TEM
 (Technical or engineered material use); PREP (Preparation); USES
 (Uses)
 (oxygen-peroxyl competing **bleaching** laundry compn. with
 transition metal **complex catalyst**)

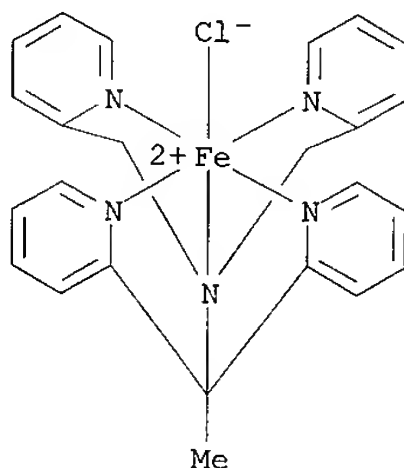
IT 13478-10-9 **223504-10-7**
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (oxygen-peroxyl competing **bleaching** laundry compn. with
 transition metal **complex catalyst**)

IT 7722-84-1, Hydrogen peroxide, uses
 RL: TEM (Technical or engineered material use); USES (Uses)
 (oxygen-peroxyl competing bleaching laundry compn. with transition
 metal complex **catalyst**)

IT **328564-06-3P**
 RL: RCT (Reactant); RACT (Reactant or reagent); TEM
 (Technical or engineered material use); PREP (Preparation); USES
 (Uses)
 (oxygen-peroxyl competing **bleaching** laundry compn. with
 transition metal **complex catalyst**)

RN 328564-06-3 HCAPLUS

CN Iron(1+), chloro[.alpha.-methyl-.alpha.-(2-pyridinyl-.kappa.N)-N,N-bis[(2-
 pyridinyl-.kappa.N)methyl]-2-pyridinemethanamine-.kappa.N1,.kappa.N2]-,
 chloride, (OC-6-43)- (9CI) (CA INDEX NAME)



● Cl⁻

RE.CNT 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L26 ANSWER 9 OF 27 HCAPLUS COPYRIGHT 2003 ACS on STN
AN 2001:661544 HCAPLUS
DN 135:244102
TI Bleaching laundry composition with transition metal complex
catalyst and peroxy source
IN Hage, Ronald; Nuhlen, Daniela; Weyhermuller, Thomas; Wieghardt, Karl
PA Unilever Plc, UK; Unilever Nv; Hindustan Lever Ltd.
SO PCT Int. Appl., 54 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 13

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001064826	A2	20010907	WO 2001-EP1689	20010215
	WO 2001064826	A3	20020321		
	W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
	RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
	BR 2001008772	A	20021126	BR 2001-8772	20010215
	EP 1259588	A2	20021127	EP 2001-929344	20010215
	R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR			
	US 2002010120	A1	20020124	US 2001-795805	20010228
	US 6610641	B2	20030826		
PRAI	GB 2000-4849	A	20000229		
	GB 2000-4852	A	20000229		
	GB 2000-4854	A	20000229		

WO 2001-EP1689 W 20010215
 OS MARPAT 135:244102
 AB The invention relates to **catalytically** bleaching substrates, esp. laundry fabrics, with a bleaching compn. comprising a ligand that forms a complex with a transition metal and .gtoreq.1%, preferably .gtoreq.5% of a peroxy species or equiv. source.
 IC ICM C11D003-39
 ICS D06L003-02
 CC 46-5 (Surface Active Agents and Detergents)
 IT Bleaching agents
 Oxidation **catalysts**
 (bleaching laundry compn. with transition metal complex **catalyst** and peroxy source)
 IT Detergents
 (laundry; bleaching laundry compn. with transition metal complex **catalyst** and peroxy source)
 IT 329279-19-8
 RL: **CAT (Catalyst use)**; USES (Uses)
 (bleaching laundry compn. with transition metal complex **catalyst** and peroxy source)
 IT 328564-06-3P 360044-83-3P
 RL: **CAT (Catalyst use)**; PRP (Properties); **SPN (Synthetic preparation)**; **PREP (Preparation)**; USES (Uses)
 (bleaching laundry compn. with transition metal **complex catalyst** and peroxy source)
 IT 329279-17-6P
 RL: **CAT (Catalyst use)**; PRP (Properties); **SPN (Synthetic preparation)**; TEM (Technical or engineered material use); **PREP (Preparation)**; USES (Uses)
 (bleaching laundry compn. with transition metal complex **catalyst** and peroxy source)
 IT 67705-38-8P, 1,4,7-Triazatricyclo(5.2.1.04,10)decane 253669-69-1P, 1-Ethyl-1,4,7-triazacyclononane 329279-23-4P 329279-24-5P
 RL: PRP (Properties); RCT (Reactant); **SPN (Synthetic preparation)**; **PREP (Preparation)**; RACT (Reactant or reagent)
 (bleaching laundry compn. with transition metal complex **catalyst** and peroxy source)
 IT 329279-22-3P
 RL: PRP (Properties); **SPN (Synthetic preparation)**; **PREP (Preparation)**
 (bleaching laundry compn. with transition metal complex **catalyst** and peroxy source)
 IT 220811-58-5P 357397-75-2P 357397-76-3P 357397-77-4P 357397-78-5P
 RL: PRP (Properties); **SPN (Synthetic preparation)**; TEM (Technical or engineered material use); **PREP (Preparation)**; USES (Uses)
 (bleaching laundry compn. with transition metal complex **catalyst** and peroxy source)
 IT 74-96-4, Ethylbromide 91-22-5, Quinoline, reactions 122-51-0, Orthoformicacidtriethylester 128-08-5, N-Bromosuccinimide 1120-82-7, 1-Pyrazolylmethanol 4730-54-5, 1,4,7-Triazacyclononane 4857-04-9, 2-Chloromethylbenzimidazole 6959-47-3, 2-Picolyl chloride hydrochloride 7789-46-0, Iron dibromide 13478-10-9 13520-69-9, Iron(II) perchlorate hexahydrate 223504-10-7
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (bleaching laundry compn. with transition metal **complex catalyst** and peroxy source)
 IT 5632-15-5P
 RL: RCT (Reactant); **SPN (Synthetic preparation)**; **PREP (Preparation)**; RACT (Reactant or reagent)

(bleaching laundry compn. with transition metal complex
catalyst and peroxy source)

IT 133476-84-3, 1,4,7-Tris(pyrazol-1-ylmethyl)-1,4,7-triazacyclononane
329279-25-6 329279-26-7 329279-28-9 329279-29-0 329279-30-3
357397-79-6

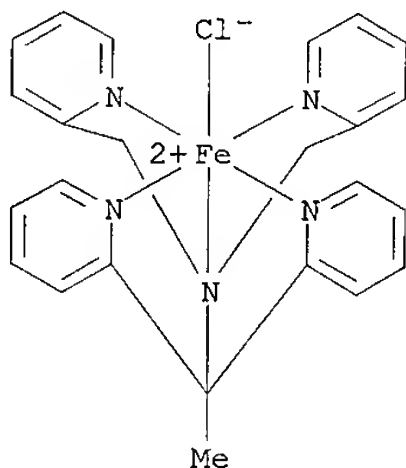
RL: TEM (Technical or engineered material use); USES (Uses)
(bleaching laundry compn. with transition metal complex
catalyst and peroxy source)

IT 328564-06-3P

RL: RCT (Reactant); RACT (Reactant or reagent);
SPN (Synthetic preparation); PREP (Preparation); USES
(Uses)
(bleaching laundry compn. with transition metal
complex catalyst and peroxy source)

RN 328564-06-3 HCAPLUS

CN Iron(1+), chloro[.alpha.-methyl-.alpha.-(2-pyridinyl-.kappa.N)-N,N-bis[(2-
pyridinyl-.kappa.N)methyl]-2-pyridinemethanamine-.kappa.N1,.kappa.N2]-,
chloride, (OC-6-43)- (9CI) (CA INDEX NAME)



● Cl⁻

L26 ANSWER 10 OF 27 HCAPLUS COPYRIGHT 2003 ACS on STN

AN 2001:168097 HCAPLUS

DN 134:209696

TI Preparation of a complex of organic compound/transition metal for use as
catalyst in bleaching composition

IN Hage, Ronald; Veerman, Simon Marinus

PA Unilever PLC, UK; Unilever N.V.; Hindustan Lever Limited

SO PCT Int. Appl., 100 pp.
CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 13

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001016271	A1	20010308	WO 2000-EP8076	20000816
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR,				

HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT,
 LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU,
 SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU,
 ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
 RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
 DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ,
 CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

WO 2000012667 A1 20000309 WO 1999-GB2876 19990901

W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ,
 DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS,
 JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK,
 MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ,
 TM, TR, TT, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD,
 RU, TJ, TM

RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK,
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 CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

WO 2000012808 A1 20000309 WO 1999-GB2878 19990901

W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ,
 DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS,
 JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK,
 MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ,
 TM, TR, TT, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD,
 RU, TJ, TM

RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK,
 ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG,
 CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

BR 2000013746 A 20020507 BR 2000-13746 20000816

EP 1208188 A1 20020529 EP 2000-962335 20000816

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
 IE, SI, LT, LV, FI, RO, MK, CY, AL

PRAI WO 1999-GB2876 W 19990901

WO 1999-GB2878 W 19990901

GB 2000-4990 A 20000301

GB 1998-19046 A 19980901

GB 1999-6474 A 19990319

GB 1999-7713 A 19990401

GB 1999-7714 A 19990401

WO 2000-EP8076 W 20000816

OS MARPAT 134:209696

AB The invention relates to a liq. bleaching compn. for **catalytically**
 bleaching substrates, esp. laundry fabrics, with atm. oxygen or air. A
 liq. bleaching compn. is provided comprising an org. substance which forms
 a complex with a transition metal, the complex **catalyzing**
 bleaching of a substrate by atm. oxygen, and a liq. carrier or solvent,
 wherein the compn. is substantially devoid of peroxygen bleach or a
 peroxy-based or -generating bleach system. The org. compd. is
 N,N-bis(pyridin-2-ylmethyl)-1,1-bis(pyridin-2-yl)-1-aminoethane. Also
 provided is a method of bleaching a substrate comprising applying the liq.
 bleaching compn. to the substrate. Also provided is a method of treating
 a textile by contacting the textile with the liq. bleaching compn.,
 whereby the complex **catalyzes** bleaching of the textile by atm.
 oxygen after the treatment.

IC ICM C11D003-39

ICS D06L003-02

CC 45-4 (Industrial Organic Chemicals, Leather, Fats, and Waxes)

Section cross-reference(s): 46, 67

ST bleaching **catalyst** org compd iron chloride complex prepn;

pyridinylmethyl pyridinyl aminoethane ferrous chloride complex bleaching
catalyst

IT Ligands
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (N,N-bis(pyridin-2-ylmethyl)-1,1-bis(pyridin-2-yl)-1-aminoethane; in
 prepn. of a complex of org. compd./transition metal for use as
catalyst in bleaching compn.)

IT Oxidation **catalysts**
 (bleaching **catalyst**; prepn. of a complex of org.
 compd./transition metal for use as **catalyst** in bleaching
 compn.)

IT Transition metals, reactions
 RL: **CAT (Catalyst use)**; RCT (Reactant); RACT (Reactant or
 reagent); USES (Uses)
 (iron; in prepn. of a complex of org. compd./transition metal for use
 as **catalyst** in bleaching compn.)

IT Detergents
 (laundry; prepn. of a complex of org. compd./transition metal for use
 as **catalyst** in bleaching compn.)

IT Bleaching agents
 (prepn. of a complex of org. compd./transition metal for use as
catalyst in bleaching compn.)

IT 328564-06-3P
 RL: **CAT (Catalyst use)**; IMF (Industrial manufacture);
 MOA (Modifier or additive use); PREP (Preparation); USES (Uses)
 (bleaching **catalysts**; prepn. of a **complex**
 of org. compd./transition metal for use as **catalyst** in
 bleaching compn.)

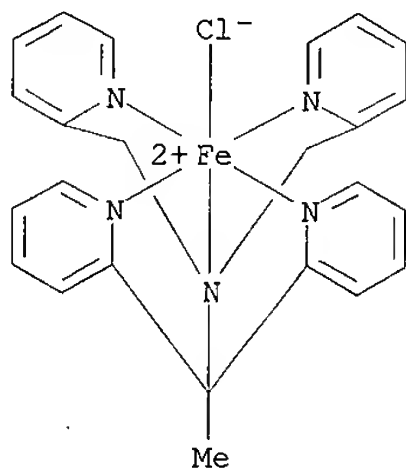
IT 223504-10-7P
 RL: RCT (Reactant); SPN (Synthetic preparation);
 PREP (Preparation); RACT (Reactant or reagent)
 (ligand; in prepn. of a **complex** of org.
 compd./transition metal for use as **catalyst** in
 bleaching compn.)

IT 13478-10-9, Iron chloride (FeCl₂) tetrahydrate
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (transition metals; in prepn. of a complex of org. compd./transition
 metal for use as **catalyst** in bleaching compn.)

IT 328564-06-3P
 RL: RCT (Reactant); SPN (Synthetic preparation);
 PREP (Preparation); RACT (Reactant or reagent); USES
 (Uses)
 (bleaching **catalysts**; prepn. of a **complex**
 of org. compd./transition metal for use as **catalyst** in
 bleaching compn.)

RN 328564-06-3 HCAPLUS

CN Iron(1+), chloro[.alpha.-methyl-.alpha.-(2-pyridinyl-.kappa.N)-N,N-bis[(2-
 pyridinyl-.kappa.N)methyl]-2-pyridinemethanamine-.kappa.N1,.kappa.N2]-,
 chloride, (OC-6-43)- (9CI) (CA INDEX NAME)



● Cl⁻

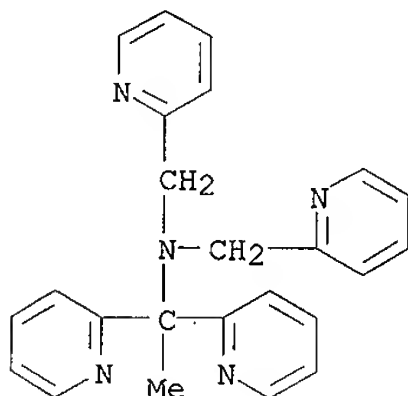
RE.CNT 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L26 ANSWER 11 OF 27 HCAPLUS COPYRIGHT 2003 ACS on STN
AN 2001:168095 HCAPLUS
DN 134:209726
TI Method of bleaching stained fabrics using bleaching catalyst
-impregnated cloth
IN Delroisse, Michel Gilbert Jose; Jones, David Andrew Ross; Smith, Richard
George; Wells, John Francis
PA Unilever PLC, UK; Unilever N.V.; Hindustan Lever Limited
SO PCT Int. Appl., 77 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 13

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001016269	A1	20010308	WO 2000-EP7563	20000804
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
WO 2000012808	A1	20000309	WO 1999-GB2878	19990901
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG,				

CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
 BR 2000013592 A 20020507 BR 2000-13592 20000804
 EP 1208187 A1 20020529 EP 2000-960390 20000804
 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
 IE, SI, LT, LV, FI, RO, MK, CY, AL
 PRAI WO 1999-GB2878 W 19990901
 GB 2000-4847 A 20000229
 GB 1998-19046 A 19980901
 GB 1999-6474 A 19990319
 GB 1999-7713 A 19990401
 WO 2000-EP7563 W 20000804
 OS MARPAT 134:209726
 AB A method for bleaching stained fabrics is provided by washing a stained fabric in an aq. wash liquor in the presence of a wash additive that comprises a ligand that forms a transition metal complex as bleach **catalyst**, the complex **catalyzing** bleaching of stains by atm. oxygen. The wash additive preferably comprises an iron complex comprising the ligand N,N-bis(pyridin-2-yl-methyl)-1,1-bis(pyridin-2-yl)-1-aminoethane. One or both of the wash additive and the wash liquor are substantially devoid of peroxygen bleach or a peroxy-based or -generating bleach system. The wash additive provides improved or broader stain profile bleaching.
 IC ICM C11D003-39
 ICS D06L003-02; C11D017-04
 CC 46-5 (Surface Active Agents and Detergents)
 Section cross-reference(s): 40
 ST cloth bleaching **catalyst** impregnated stain remover; iron pentadentate ligand complex bleaching **catalyst** stain remover
 IT Ligands
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (N,N-bis(pyridin-2-yl-methyl)-1,1-bis(pyridin-2-yl)-1-aminoethane; in method of bleaching stained fabrics using bleaching **catalyst** -impregnated cloth)
 IT Transition metal complexes
 RL: CAT (**Catalyst use**); IMF (Industrial manufacture); PREP (Preparation); USES (Uses)
 (in method of bleaching stained fabrics using bleaching **catalyst**-impregnated cloth)
 IT Oxidation **catalysts**
 (method of bleaching stained fabrics using bleaching **catalyst** -impregnated cloth)
 IT Detergents
 (stain removers; method of bleaching stained fabrics using bleaching **catalyst**-impregnated cloth)
 IT 7439-89-6DP, Iron, complex with N,N-Bis(pyridin-2-yl-methyl)-1,1-bis(pyridin-2-yl)-1-aminoethane, uses 223504-10-7DP, N,N-Bis(pyridin-2-yl-methyl)-1,1-bis(pyridin-2-yl)-1-aminoethane, complex with iron
 RL: CAT (**Catalyst use**); IMF (Industrial manufacture); PREP (Preparation); USES (Uses)
 (bleaching **catalyst**; method of bleaching stained fabrics using bleaching **catalyst** -impregnated cloth)
 IT 7722-84-1, Hydrogen peroxide, uses
 RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)
 (in method of bleaching stained fabrics using bleaching **catalyst**-impregnated cloth)

IT 223504-10-7DP, N,N-Bis(pyridin-2-yl-methyl)-1,1-bis(pyridin-2-yl)-
1-aminoethane, **complex** with iron
RL: CAT (Catalyst use); IMF (Industrial manufacture);
PREP (Preparation); USES (Uses)
(bleaching catalyst; method of bleaching
stained fabrics using bleaching catalyst
-impregnated cloth)
RN 223504-10-7 HCAPLUS
CN 2-Pyridinemethanamine, .alpha.-methyl-.alpha.-2-pyridinyl-N,N-bis(2-
pyridinylmethyl)- (9CI) (CA INDEX NAME)



RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L26 ANSWER 12 OF 27 HCAPLUS COPYRIGHT 2003 ACS on STN
AN 2001:168094 HCAPLUS
DN 134:224342
TI Method of pretreating and bleaching stained fabrics with a ligand/metal
complex bleaching **catalyst**
IN Delroisse, Michel Gilbert Jose; Jones, David Andrew Ross; Smith, Richard
George; Wells, John Francis
PA Unilever PLC, UK; Unilever N.V.; Hindustan Lever Limited
SO PCT Int. Appl., 85 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 13

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001016268	A1	20010308	WO 2000-EP7561	20000804
<p>W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM</p> <p>RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG</p>				
WO 2000012808	A1	20000309	WO 1999-GB2878	19990901
<p>W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ,</p>				

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 CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
 BR 2000013593 A 20020507 BR 2000-13593 20000804
 EP 1208184 A1 20020529 EP 2000-951477 20000804
 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
 IE, SI, LT, LV, FI, RO, MK, CY, AL
 PRAI WO 1999-GB2878 W 19990901
 GB 2000-4844 A 20000229
 GB 1998-19046 A 19980901
 GB 1999-6474 A 19990319
 GB 1999-7713 A 19990401
 WO 2000-EP7561 W 20000804
 OS MARPAT 134:224342
 AB A method for bleaching stained fabrics is provided by pretreating the
 stained fabric, before washing, with a pretreatment compn. that comprises
 a ligand that forms a transition metal complex as bleach **catalyst**
 , the complex **catalyzing** bleaching of stains by atm. oxygen.
 The pretreatment compn. preferably comprises an iron complex comprising
 the ligand N,N-bis(pyridin-2-yl-methyl)-1,1-bis(pyridin-2-yl)-1-
 aminoethane. One or both of the pretreatment compn. and the wash liquor
 are substantially devoid of peroxygen bleach or a peroxy-based or
 -generating bleach system. The pretreatment provides improved or broader
 stain profile bleaching.
 IC ICM C11D003-39
 ICS D06L003-02
 CC 46-5 (Surface Active Agents and Detergents)
 ST iron pentadentate ligand complex bleaching **catalyst** stain
 remover
 IT Ligands
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (N,N-bis(pyridin-2-yl-methyl)-1,1-bis(pyridin-2-yl)-1-aminoethane; in
 pretreating and bleaching stained fabrics with a ligand/metal complex
 bleaching **catalyst**)
 IT Oxidation **catalysts**
 (in pretreating and bleaching stained fabrics with a ligand/metal
 complex bleaching **catalyst**)
 IT Transition metal complexes
 RL: CAT (**Catalyst use**); IMF (Industrial manufacture); PREP
 (Preparation); USES (Uses)
 (in pretreating and bleaching stained fabrics with a ligand/metal
 complex bleaching **catalyst**)
 IT Sunflower oil
 RL: MOA (Modifier or additive use); TEM (Technical or engineered material
 use); USES (Uses)
 (in pretreating and bleaching stained fabrics with a ligand/metal
 complex bleaching **catalyst**)
 IT Detergents
 (stain removers; in pretreating and bleaching stained fabrics with a
 ligand/metal complex bleaching **catalyst**)
 IT Fatty acids, uses
 RL: MOA (Modifier or additive use); TEM (Technical or engineered material
 use); USES (Uses)
 (unsatd., oil; in pretreating and bleaching stained fabrics with a
 ligand/metal complex bleaching **catalyst**)
 IT 328564-06-3P

RL: CAT (Catalyst use); IMF (Industrial manufacture);
 PREP (Preparation); USES (Uses)
 (bleaching catalyst; in pretreating and
 bleaching stained fabrics with a ligand/metal
 complex bleaching catalyst)

IT 223504-13-0P
 RL: CAT (Catalyst use); IMF (Industrial manufacture);
 PREP (Preparation); USES (Uses)
 (bleaching catalyst; pretreating and
 bleaching stained fabrics with a ligand/metal
 complex bleaching catalyst)

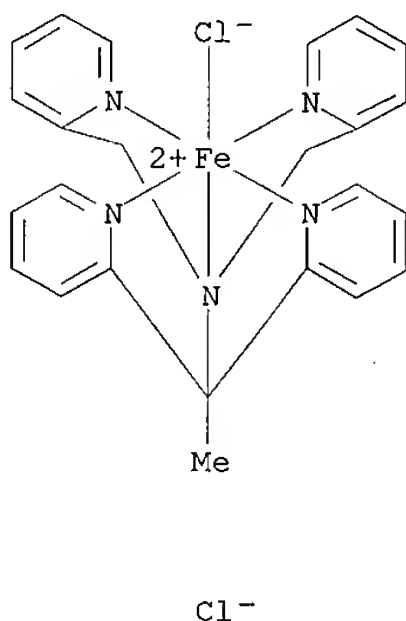
IT 7722-84-1, Hydrogen peroxide, uses
 RL: MOA (Modifier or additive use); TEM (Technical or engineered material
 use); USES (Uses)
 (in pretreating and bleaching stained fabrics with a ligand/metal
 complex bleaching catalyst)

IT 7758-94-3, Ferrous chloride 13933-23-8, Ferrous perchlorate
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (in pretreating and bleaching stained fabrics with a ligand/metal
 complex bleaching catalyst)

IT 223504-10-7
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (ligand; in pretreating and bleaching stained
 fabrics with a ligand/metal complex
 bleaching catalyst)

IT 328564-06-3P
 RL: RCT (Reactant); RACT (Reactant or reagent);
 PREP (Preparation); USES (Uses)
 (bleaching catalyst; in pretreating and
 bleaching stained fabrics with a ligand/metal
 complex bleaching catalyst)

RN 328564-06-3 HCAPLUS
 CN Iron(1+), chloro[.alpha.-methyl-.alpha.-(2-pyridinyl-.kappa.N)-N,N-bis[(2-
 pyridinyl-.kappa.N)methyl]-2-pyridinemethanamine-.kappa.N1,.kappa.N2]-,
 chloride, (OC-6-43)- (9CI) (CA INDEX NAME)



RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD

KATHLEEN FULLER EIC 1700/PARKER LAW 308-4290

ALL CITATIONS AVAILABLE IN THE RE FORMAT

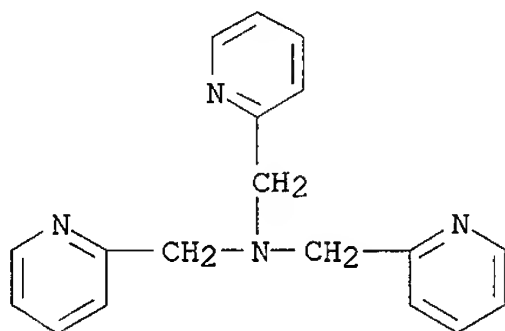
L26 ANSWER 13 OF 27 HCAPLUS COPYRIGHT 2003 ACS on STN
 AN 2001:168088 HCAPLUS
 DN 134:224341
 TI Bleaching composition and method for bleaching a substrate such as
 laundered fabrics with atmospheric oxygen or air
 IN Carina, Riccardo Filippo; Fox, Stephen Paul; Kalmeijer, Robertus
 Everardus; Karlin, Kenneth Daniel; Thijssen, Rob; Twisker, Robin Stefan
 PA Unilever PLV, UK; Unilever NV; Hindustan Lever Limited
 SO PCT Int. Appl., 49 pp.
 CODEN: PIXXD2

DT Patent
 LA English

FAN.CNT 13

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001016261	A2	20010308	WO 2000-EP8078	20000816
	WO 2001016261	A3	20010830		
	W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
	RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
	WO 2000012667	A1	20000309	WO 1999-GB2876	19990901
	W:	AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
	RW:	GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
	WO 2000012808	A1	20000309	WO 1999-GB2878	19990901
	W:	AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
	RW:	GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
	EP 1208185	A2	20020529	EP 2000-953179	20000816
	R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL			
	BR 2000013737	A	20020604	BR 2000-13737	20000816
PRAI	WO 1999-GB2876	W	19990901		
	WO 1999-GB2878	W	19990901		
	GB 2000-6961	A	20000322		
	GB 1998-19046	A	19980901		
	GB 1999-6474	A	19990319		
	GB 1999-7713	A	19990401		

GB 1999-7714 A 19990401
 WO 2000-EP8078 W 20000816
 OS MARPAT 134:224341
 AB Bleaching a substrate comprises applying to the substrate, in an aq. medium, a specified ligand which forms a complex with a transition metal, for bleaching of the substrate by atm. O. An aq. bleaching compn. is substantially devoid of peroxygen bleach or a peroxy-based or peroxy-generating bleach system. The **catalyst** may be used in dry form, or in a liquor that is then dried, such as an aq. spray-on fabric treatment fluid or a wash liquor for laundry cleaning, or a nonaq. dry cleaning fluid or spray-on aerosol fluid. A typical complex of tris(3-methylpyridin-2-yl methyl)amine ligand complex with Fe(ClO₄)₂.6H₂O showed good performance (curry oil stained fabric .delta.E 17) in alk. wash.
 IC ICM C11D
 CC 46-5 (Surface Active Agents and Detergents)
 Section cross-reference(s): 67
 ST bleaching laundered fabric atm oxygen transition metal complex
catalyst
 IT Bleaching
 Oxidation **catalysts**
 (compn. for bleaching a laundered fabrics with atm. oxygen or air)
 IT Transition metal complexes
 RL: **CAT (Catalyst use); USES (Uses)**
 (compn. for bleaching a laundered fabrics with atm. oxygen or air)
 IT Ligands
 RL: **CAT (Catalyst use); IMF (Industrial manufacture); RCT**
 (Reactant); **PREP (Preparation); RACT (Reactant or reagent); USES (Uses)**
 (compn. for bleaching a laundered fabrics with atm. oxygen or air)
 IT 7439-89-6D, Iron, tris(methylpyridinylmethyl)amine complexes, uses
 7439-96-5D, Manganese, tris(methylpyridinylmethyl)amine complexes, uses
 161647-08-1D, iron and manganese complexes 202192-54-9D, iron and
 manganese complexes 329185-39-9D, iron complex
 RL: **CAT (Catalyst use); USES (Uses)**
 (compn. for bleaching a laundered fabrics with atm. oxygen or air)
 IT **16858-01-8P**, Tris(pyridin-2-ylmethyl)amine **25599-08-0P**
161647-08-1P 202192-54-9P
 RL: **IMF (Industrial manufacture); PREP (Preparation)**
 (ligand; compn. for bleaching a laundered fabrics
 with atm. oxygen or air)
 IT **329185-38-8P**
 RL: **IMF (Industrial manufacture); RCT (Reactant);**
PREP (Preparation); RACT (Reactant or reagent)
 (ligand; compn. for bleaching a laundered fabrics
 with atm. oxygen or air)
 IT **16858-01-8P**, Tris(pyridin-2-ylmethyl)amine
 RL: **IMF (Industrial manufacture); RCT (Reactant);**
PREP (Preparation); RACT (Reactant or reagent)
 (ligand; compn. for bleaching a laundered fabrics
 with atm. oxygen or air)
 RN 16858-01-8 HCAPLUS
 CN 2-Pyridinemethanamine, N,N-bis(2-pyridinylmethyl)- (9CI) (CA INDEX NAME)



L26 ANSWER 14 OF 27 HCAPLUS COPYRIGHT 2003 ACS on STN
 AN 2000:849131 HCAPLUS
 DN 134:63164
 TI Electrochemical study of binuclear manganese complexes as
catalysts in Kraft pulp bleaching
 AU Tzedakis, T.
 CS Laboratoire de Genie Chimique, UMR CNRS 5503, Universite Paul Sabatier,
 Toulouse, 31062, Fr.
 SO Electrochimica Acta (2000), 46(1), 99-109
 CODEN: ELCAAV; ISSN: 0013-4686
 PB Elsevier Science Ltd.
 DT Journal
 LA English
 AB The redox behavior, stability and **catalytic** properties of
 various binuclear manganese-ligand complexes was examd. by electrochem.
 thin layer and potential measurements. Some of the complexes studied were
 irreversibly degraded by oxidn. at high potentials, while others were
 dissoed. in aq. media to give the monomeric form. Otherwise, most of
 these complexes occur in acid-base equil., through protonation of the
 ligand amino functions. The manganese-tris(2-pyridylmethyl)amine complex
 is stable without dissoed. at pH 3-5 and temps. of 15-80.degree.. The
 results show that after several successive scans in the 0-1 V range the
 complex can be oxidized or reduced without irreversible degrdn.; it can be
 used in **catalytic** amts. (0.1 g of complex per g Kraft pulp) for
 lignin oxidn. by hydrogen peroxide.
 CC 72-2 (Electrochemistry)
 Section cross-reference(s): 43, 67, 68, 78
 ST electrochem study binuclear manganese complex **catalyst** Kraft
 pulp bleaching; redox electrochem manganese binuclear complex; oxidn
 electrochem manganese binuclear complex; redn electrochem manganese
 binuclear complex; lignin oxidn Kraft pulp bleaching manganese binuclear
 complex **catalyst**
 IT Cellulose pulp
 Pulp bleaching
 (electrochem. study of binuclear manganese complexes as
catalysts in Kraft pulp bleaching)
 IT Redox reaction
 (electrochem.; of Mn mononuclear and binuclear complexes on C film in
 Na2SO4 soln.: electrochem. study of binuclear manganese complexes as
catalysts in Kraft pulp bleaching)
 IT Oxidation **catalysts**
 (manganese binuclear complexes for lignin oxidn. by H2O2 and in Kraft
 pulp bleaching)
 IT Oxidation potential

- Reduction potential
(of Mn mononuclear and binuclear complexes in Na₂SO₄ soln.:
electrochem. study of binuclear manganese complexes as
catalysts in Kraft pulp bleaching)
- IT Oxidation, electrochemical
Reduction, electrochemical
(of Mn mononuclear and binuclear complexes on C film in Na₂SO₄ soln.:
electrochem. study of binuclear manganese complexes as
catalysts in Kraft pulp bleaching)
- IT 157876-75-0 314062-65-2 **314062-66-3** 314062-69-6
RL: FMU (Formation, unclassified); PRP (Properties); RCT
(Reactant); FORM (Formation, nonpreparative); RACT (Reactant or
reagent)
(electrochem. formation and oxidn. on carbon film in Na₂SO₄ soln.:
electrochem. study of binuclear manganese **complexes** as
catalysts in Kraft pulp **bleaching**)
- IT 157876-73-8 314062-67-4 **314062-68-5**
RL: FMU (Formation, unclassified); PRP (Properties); RCT
(Reactant); FORM (Formation, nonpreparative); RACT (Reactant or
reagent)
(electrochem. formation and redn. on carbon film in Na₂SO₄ soln.:
electrochem. study of binuclear manganese **complexes** as
catalysts in Kraft pulp **bleaching**)
- IT 7440-44-0, Carbon, uses
RL: DEV (Device component use); PRP (Properties); USES (Uses)
(electrochem. oxidn. and redn. of Mn mononuclear and binuclear
complexes on C film in Na₂SO₄ soln.: electrochem. study of binuclear
manganese complexes as **catalysts** in Kraft pulp bleaching)
- IT 7757-82-6, Sodium sulfate (Na₂SO₄), uses
RL: NUU (Other use, unclassified); PRP (Properties); USES (Uses)
(electrochem. oxidn. and redn. of Mn mononuclear and binuclear
complexes on C film in Na₂SO₄ soln.: electrochem. study of binuclear
manganese complexes as **catalysts** in Kraft pulp bleaching)
- IT 47883-04-5 146261-74-7 191339-53-4 **314062-64-1**
RL: CAT (Catalyst use); FMU (Formation, unclassified); PRP
(Properties); RCT (Reactant); FORM (Formation, nonpreparative);
RACT (Reactant or reagent); USES (Uses)
(electrochem. oxidn. and redn. on carbon film in Na₂SO₄ soln.:
electrochem. study of binuclear manganese **complexes** as
catalysts in Kraft pulp **bleaching**)
- IT 366-18-7D, 2,2'-Bipyridine, manganese binuclear complexes 7439-96-5D,
Manganese, binuclear complexes with bipyridine or tris(pyridylmethyl)amine
or tris(quinolinylmethyl)amine or bis(pyridylmethyl)ethanediamine Me
derivs., uses **16858-01-8D**, Tris(2-pyridylmethyl)amine, manganese
binuclear **complexes** 136768-57-5D, manganese binuclear
complexes **154823-45-7D**, manganese binuclear **complexes**
186310-68-9D, manganese binuclear complexes
RL: CAT (Catalyst use); PRP (Properties); RCT (Reactant)
; RACT (Reactant or reagent); USES (Uses)
(electrochem. study of binuclear manganese **complexes** as
catalysts in Kraft pulp **bleaching**)
- IT 7722-84-1, Hydrogen peroxide, reactions 9005-53-2, Lignin, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(manganese binuclear complexes as **catalysts** for lignin oxidn.
by H₂O₂)
- IT 314062-70-9 314062-71-0 **314062-72-1** 314062-77-6
RL: PRP (Properties); RCT (Reactant); RACT (Reactant or
reagent)

(oxidn. potential in Na₂SO₄ soln.: electrochem. study of binuclear manganese **complexes** as **catalysts** in Kraft pulp **bleaching**)

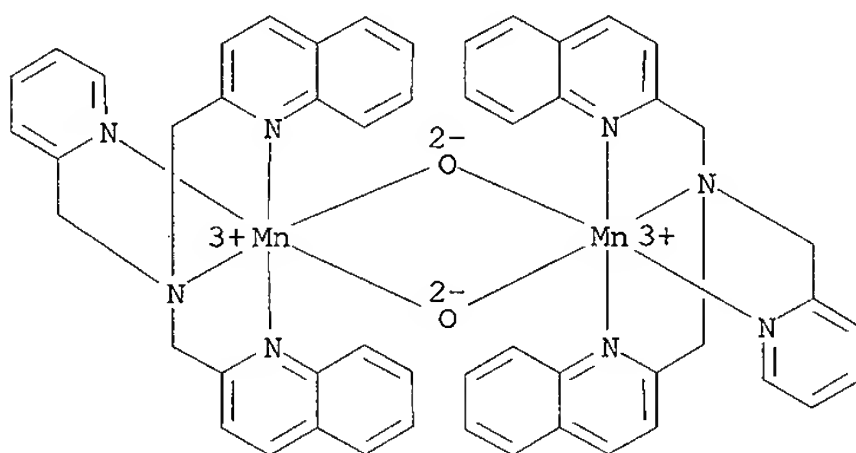
IT 314062-73-2 314062-74-3 314062-75-4 314062-76-5
RL: PRP (Properties); RCT (Reactant); RACT (Reactant or reagent)

(redn. potential in Na₂SO₄ soln.: electrochem. study of binuclear manganese **complexes** as **catalysts** in Kraft pulp **bleaching**)

IT 314062-66-3
RL: CAT (Catalyst use); RCT (Reactant); RACT (Reactant or reagent); RACT (Reactant or reagent); RACT (Reactant or reagent)
(electrochem. formation and oxidn. on carbon film in Na₂SO₄ soln.: electrochem. study of binuclear manganese **complexes** as **catalysts** in Kraft pulp **bleaching**)

RN 314062-66-3 HCAPLUS

CN Manganese(2+), di- μ -oxobis[N-[(2-pyridinyl- κ .N)methyl]-N-[(2-quinolinyl- κ .N)methyl]-2-quinolinemethanamine- κ .N1, κ .N2]di- (9CI) (CA INDEX NAME)



RE.CNT 22 THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L26 ANSWER 15 OF 27 HCAPLUS COPYRIGHT 2003 ACS on STN

AN 2000:725739 HCAPLUS

DN 133:311158

TI Composition containing **catalysts** for bleaching laundered fabrics with atmospheric oxygen

IN Carina, Riccardo Filippo; Feringa, Bernard Lucas; Hage, Ronald; Hemmert, Catherine; Koek, Jean Hypolites; Lacrois, Rene Marcel; Meunier, Bernard; Renz, Michael; Roelfes, Johannes Gerhardus; Schudde, Ebe Pieter; Thijssen, Rob; Twisker, Robin Stefan; Zondervan, Charon

PA Unilever PLC, UK; Unilever N. V.; Hindustan Lever Ltd.

SO PCT Int. Appl., 64 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 13

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2000060044	A1	20001012	WO 2000-EP2590	20000322

W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

WO 2000012667 A1 20000309 WO 1999-GB2876 19990901

W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

WO 2000012808 A1 20000309 WO 1999-GB2878 19990901

W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

EP 1165738 A1 20020102 EP 2000-918830 20000322

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO

BR 2000009457 A 20020108 BR 2000-9457 20000322

ZA 2001006939 A 20020822 ZA 2001-6939 20010822

PRAI GB 1999-7713 A 19990401

GB 1999-7714 A 19990401

WO 1999-GB2876 W 19990901

WO 1999-GB2878 W 19990901

GB 2000-4850 A 20000229

GB 1998-19046 A 19980901

GB 1999-6474 A 19990319

WO 2000-EP2590 W 20000322

OS MARPAT 133:311158

AB Bleaching a substrate applying to the substrate, in an aq. medium, a specified ligand from a selected class which forms a complex with a transition metal, the complex **catalyzing** bleaching of the substrate by atm. O. An aq. bleaching compn. is substantially devoid of peroxygen bleach or a peroxy-based or generating bleach system. Also there is a dry textile having a **catalyst** applied or deposited thereon, where bleaching by atm. O is **catalyzed** on the textile.

IC ICM C11D003-395

ICS C07D213-38; C07D213-55; C07D401-14; C07F015-02; C07F013-00; D06L003-02

CC 46-5 (Surface Active Agents and Detergents)

Section cross-reference(s): 67

ST bleaching laundered fabric atm oxygen transition metal complex

catalyst

IT Bleaching

Oxidation catalysts

(compn. contg. **catalysts** for bleaching laundered fabrics with atm. oxygen)

IT Transition metal complexes

RL: **CAT (Catalyst use); USES (Uses)**

(compn. contg. **catalysts** for bleaching laundered fabrics with atm. oxygen)

IT 223504-16-3 302541-71-5 302541-75-9 302541-78-2 302541-81-7
302541-84-0 302541-87-3 302541-91-9 302541-93-1 302541-95-3
302541-97-5 302541-99-7 302542-01-4 302542-03-6 302542-05-8
302542-07-0

RL: **CAT (Catalyst use); USES (Uses)**

(compn. contg. **catalysts** for bleaching laundered fabrics with atm. oxygen)

IT 35047-29-1P 57964-16-6P, N,N'-Bis(pyrid-2-ylmethyl)-1,3-diaminopropane
58088-50-9P 117106-10-2P 302541-67-9P 302541-68-0P 302541-79-3P
302541-88-4P

RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)

(compn. contg. **catalysts** for bleaching laundered fabrics with atm. oxygen)

IT 50-00-0, Formaldehyde, reactions 74-88-4, Methyl iodide, reactions
95-54-5, o-Phenylene diamine, reactions 109-04-6, 2-Pyridylbromide
109-76-2, 1,3-Diaminopropane 937-14-4, 3-Chloroperoxybenzoic acid
1121-60-4, Pyridine-2-carboxaldehyde 1539-42-0, Di-2-pyridyl methyl
amine 4377-33-7, 2-Picolylchloride 5470-70-2, Methyl
6-methylnicotinate 19437-26-4, Di-2-pyridylketone 49668-90-8
141213-10-7

RL: RCT (Reactant); RACT (Reactant or reagent)

(compn. contg. **catalysts** for bleaching laundered fabrics with atm. oxygen)

IT 260395-25-3

RL: **CAT (Catalyst use); USES (Uses)**

(ligand; compn. contg. **catalysts** for bleaching laundered fabrics with atm. oxygen)

IT 205827-45-8P 302541-69-1P 302541-73-7P
302541-76-0P 302541-82-8P 302541-85-1P 302541-89-5P

RL: IMF (Industrial manufacture); RCT (Reactant);

PREP (Preparation); RACT (Reactant or reagent)

(ligand; compn. contg. **catalysts** for bleaching laundered fabrics with atm. oxygen)

IT 205827-45-8P

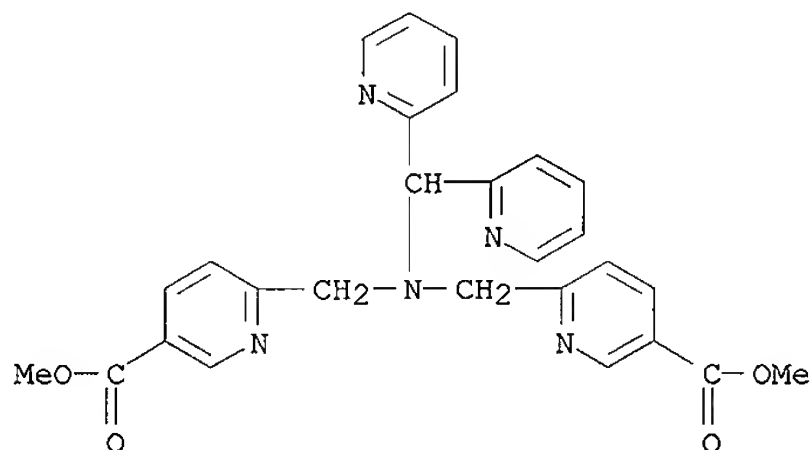
RL: IMF (Industrial manufacture); RCT (Reactant);

PREP (Preparation); RACT (Reactant or reagent)

(ligand; compn. contg. **catalysts** for bleaching laundered fabrics with atm. oxygen)

RN 205827-45-8 HCAPLUS

CN 3-Pyridinecarboxylic acid, 6,6'-[[di-2-pyridinylmethyl]imino]bis(methylen e)]bis-, dimethyl ester (9CI) (CA INDEX NAME)



RE.CNT 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L26 ANSWER 16 OF 27 HCAPLUS COPYRIGHT 2003 ACS on STN
AN 2000:725738 HCAPLUS
DN 133:311157
TI Composition containing transition metal complex for **catalytically**
bleaching laundry fabrics with atmospheric oxygen
IN Appel, Adrianus Cornelis Maria; Delroisse, Michel Gilbert Jose; Hage,
Ronald; Tetard, David; Twisker, Robin Stefan
PA Unilever PLC, UK; Unilever N. V.; Hindustan Lever Limited
SO PCT Int. Appl., 70 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 13

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000060043	A1	20001012	WO 2000-EP2587	20000322
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
WO 2000012667	A1	20000309	WO 1999-GB2876	19990901
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
WO 2000012808	A1	20000309	WO 1999-GB2878	19990901
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK,				

MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ,
 TM, TR, TT, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD,
 RU, TJ, TM

RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK,
 ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG,
 CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

ZA 2001006939 A 20020822 ZA 2001-6939 20010822
 PRAI GB 1999-7713 A 19990401
 GB 1999-7714 A 19990401
 WO 1999-GB2876 W 19990901
 WO 1999-GB2878 W 19990901
 GB 2000-4858 A 20000229
 GB 1998-19046 A 19980901
 GB 1999-6474 A 19990319
 OS MARPAT 133:311157
 AB The title method comprises applying to the substrate, in an aq. bleaching
 compn. contg. a ligand complex with a transition metal, the complex
catalyzing bleaching of the substrate by atm. O. Also the aq.
 bleaching compn. is substantially devoid of peroxygen bleach or a
 peroxy-based or -generating bleach system. Tomato stained cloths were
 bleached in the presence of a cleaner contg. surfactant and 10 .mu.M
 [Fe(N-methyl-N,N',N'-tris(3-methylpyridin-2-ylmethyl)ethylenediamine)Cl](P
 F6)(prepn. given), showing a color difference (pH 8) 17; vs. 3 for a blank
 and 2 using peroxide source bleach.
 IC ICM C11D003-395
 ICS C07D213-38; C07F015-02; C07F013-00; D06L003-02; C07D235-30;
 C07D405-14
 CC 46-5 (Surface Active Agents and Detergents)
 Section cross-reference(s): 67
 ST bleaching laundered fabric atm oxygen transition metal complex
catalyst; pyridinylmethyl ethylenediamine iron complex bleaching
catalyst manuf
 IT Bleaching
 Oxidation **catalysts**
 (compn. contg. transition metal complex for **catalytically**
 bleaching laundry fabrics with atm. oxygen)
 IT Transition metal complexes
 RL: **CAT (Catalyst use)**; IMF (Industrial manufacture); PREP
 (Preparation); USES (Uses)
 (compn. contg. transition metal complex for **catalytically**
 bleaching laundry fabrics with atm. oxygen)
 IT 7439-89-6D, Iron, polyamine complexes, uses 7439-96-5D, Manganese,
 polyamine complexes, uses 7440-48-4D, Cobalt, polyamine complexes, uses
 302542-45-6D, transition metal complexes 302542-66-1 302542-70-7
 302542-74-1 302542-77-4 302542-81-0 302542-84-3 302542-86-5
 302542-88-7 302542-90-1 302542-92-3 302542-94-5 302542-96-7
 302542-98-9 302543-00-6 302543-02-8 302543-04-0 302543-06-2
 302543-08-4 302543-10-8 302543-12-0 302543-14-2 302543-16-4
 302543-18-6 302543-20-0 302543-22-2 302543-24-4 302543-26-6
 302543-28-8 302543-30-2 302543-32-4 302543-34-6 302543-37-9
 302543-39-1 302543-41-5 302543-43-7 302543-46-0 302543-48-2
 302543-50-6
 RL: **CAT (Catalyst use)**; USES (Uses)
 (compn. contg. transition metal complex for **catalytically**
 bleaching laundry fabrics with atm. oxygen)
 IT 260395-33-3P 302542-43-4DP, iron dinuclear
 complex 302543-53-9P 302543-55-1P
 302543-57-3P

RL: CAT (Catalyst use); IMF (Industrial manufacture);
PREP (Preparation); USES (Uses)

(compn. contg. transition metal **complex** for
catalytically bleaching laundry fabrics with atm.
oxygen)

IT 110-72-5P 768-61-6P, 2-Hydroxymethyl-5-ethyl pyridine 772-71-4P,
2-Acetoxymethyl-5-methyl pyridine 3010-05-7P, N-Benzyl amino
acetonitrile 4152-09-4P 5700-58-3P 19815-35-1P 21852-60-8P,
2-Acetoxymethyl-5-ethyl pyridine 22940-71-2P, 2-Hydroxymethyl-5-methyl
pyridine 24426-40-2P, N-Ethyl amino acetonitrile 52814-41-2P,
2-Acetoxymethyl-3-methyl pyridine 63071-09-0P, 2-Hydroxymethyl-3-methyl
pyridine 302543-51-7P

RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT
(Reactant or reagent)

(compn. contg. transition metal **complex** for **catalytically**
bleaching laundry fabrics with atm. oxygen)

IT 50-00-0, Formaldehyde, reactions 75-04-7, Ethylamine, reactions
98-01-1, Furan-2-carbaldehyde, reactions 100-46-9, N-Benzyl amine,
reactions 103-76-4, 1-Piperazineethanol 104-90-5, 5-Ethyl-2-methyl
pyridine 109-81-9 143-33-9, Sodium cyanide (NaCN) 583-61-9,
2,3-Lutidine 589-93-5, 2,5-Lutidine 4377-33-7, Picolyl chloride
4377-43-9 4760-34-3 7467-35-8 13478-10-9, Iron dichloride
tetrahydrate 16941-11-0, Ammonium hexafluorophosphate 21324-39-0,
Sodium hexafluorophosphate 34451-31-5

RL: RCT (Reactant); RACT (Reactant or reagent)

(compn. contg. transition metal **complex** for **catalytically**
bleaching laundry fabrics with atm. oxygen)

IT 104170-15-2

RL: RCT (Reactant); RACT (Reactant or reagent)
(ligand precursor; compn. contg. transition metal
complex for **catalytically bleaching** laundry
fabrics with atm. oxygen)

IT 172300-86-6 260395-29-7 260395-31-1 302542-45-6 302543-35-7
302543-44-8

RL: CAT (Catalyst use); USES (Uses)

(ligand; compn. contg. transition metal **complex** for
catalytically bleaching laundry fabrics with atm. oxygen)

IT 260395-26-4P 260395-27-5P 260395-28-6P
260395-30-0P 302542-43-4P 302542-62-7P

RL: CAT (Catalyst use); IMF (Industrial manufacture);

PREP (Preparation); USES (Uses)

(ligand; compn. contg. transition metal **complex** for
catalytically bleaching laundry fabrics with atm.
oxygen)

IT 302542-35-4P

RL: IMF (Industrial manufacture); RCT (Reactant);

PREP (Preparation); RACT (Reactant or reagent)

(ligand; compn. contg. transition metal **complex** for
catalytically bleaching laundry fabrics with atm.
oxygen)

IT 260395-33-3P

RL: IMF (Industrial manufacture); RCT (Reactant);

PREP (Preparation); RACT (Reactant or reagent)

(compn. contg. transition metal **complex** for
catalytically bleaching laundry fabrics with atm.
oxygen)

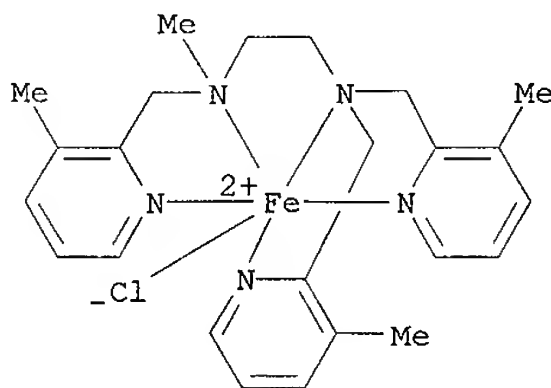
RN 260395-33-3 HCAPLUS

CN Iron(1+), chloro[N-methyl-N,N',N'-tris[(3-methyl-2-pyridinyl-

.kappa.N)methyl]-1,2-ethanediamine-.kappa.N,.kappa.N']-,
hexafluorophosphate(1-) (9CI) (CA INDEX NAME)

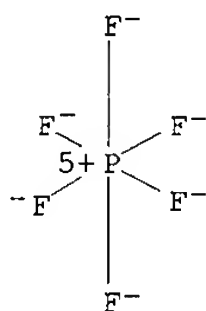
CM 1

CRN 260395-32-2
CMF C24 H31 Cl Fe N5
CCI CCS



CM 2

CRN 16919-18-9
CMF F6 P
CCI CCS



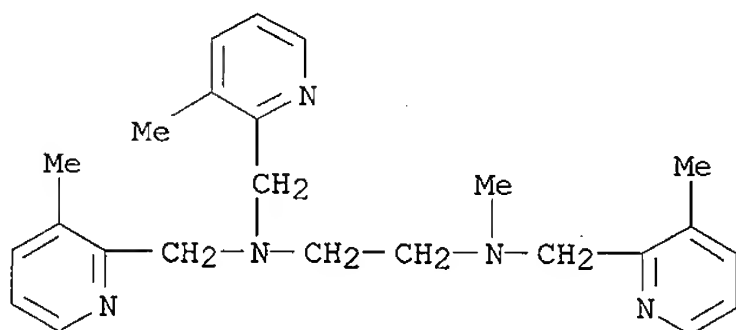
RE.CNT 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L26 ANSWER 17 OF 27 HCAPLUS COPYRIGHT 2003 ACS on STN
AN 2000:335516 HCAPLUS
DN 132:336136
TI Detergent bleaching composition for bleaching/cleaning of fabrics
IN Delroisse, Michel Gilbert Jose; Feringa, Bernard Lucas; Hage, Ronald;
Hermant, Roelant Mathijs; Kalmeijer, Robertus Everardus; Koek, Jean
Hypolites; Lamers, Christiaan; Rispens, Minze; Russell, Stephen William;
Van Vliet, Ronaldus Theodorus Leonardus; Whittaker, Jane
PA Unilever Plc, UK; Unilever Nv; Hindustan Lever Limited
SO PCT Int. Appl., 38 pp.
CODEN: PIXXD2
DT Patent
LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2000027975	A1	20000518	WO 1999-EP8324	19991025
	W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	EP 1008645	A1	20000614	EP 1998-309168	19981110
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	BR 9915192	A	20010814	BR 1999-15192	19991025
	AU 749526	B2	20020627	AU 2000-13780	19991025
	US 6165963	A	20001226	US 1999-433156	19991103
PRAI	EP 1998-309168	A	19981110		
	WO 1999-EP8324	W	19991025		
OS	MARPAT 132:336136				
AB	A detergent bleaching catalyst comprises a compd. including a specified pentadentate N-contg. ligand. The compd. can activate H2O2 or peroxyacids and provides favorable stain removal properties, particularly in the presence of Fe, Mn or Cu ions. An improved stability in alk. aq. environment was obtained, in particular at the peroxy compd. concns. generally present in the fabric washing liquor.				
IC	ICM C11D003-395				
	ICS D06L003-02				
CC	46-4 (Surface Active Agents and Detergents)				
ST	iron complex bleach oxidn catalyst ; manganese complex bleach oxidn catalyst ; copper complex bleach oxidn catalyst				
IT	Peroxy acids				
	RL: TEM (Technical or engineered material use); USES (Uses) (bleach; metal complex bleach and oxidn. catalysts for detergent)				
IT	Detergents				
	(metal complex bleach and oxidn. catalysts for)				
IT	Bleaching agents				
	Oxidation catalysts				
	(metal complex bleach and oxidn. catalysts for detergent)				
IT	15630-89-4, Sodium percarbonate				
	RL: TEM (Technical or engineered material use); USES (Uses) (bleach precursor; metal complex bleach and oxidn. catalysts for detergent)				
IT	7722-84-1, Hydrogen peroxide, uses				
	RL: TEM (Technical or engineered material use); USES (Uses) (bleach; metal complex bleach and oxidn. catalysts for detergent)				
IT	260395-26-4P 260395-27-5P 260395-28-6P				
	260395-29-7P 260395-30-0P 260395-31-1P				
	RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent) (ligand; metal complex bleach and oxidn. catalysts for detergent)				
IT	7439-89-6D, Iron, complex with N-contg. ligand, salt, uses				
	RL: CAT (Catalyst use); USES (Uses)				

(metal complex bleach and oxidn. **catalysts** for detergent)
 IT 110-72-5P 768-61-6P, 2-Hydroxymethyl-5-ethyl pyridine 772-71-4P,
 2-Acetoxymethyl-5-methyl pyridine 3010-05-7P, N-Benzyl amino
 acetonitrile 4152-09-4P 21852-60-8P, 2-Acetoxymethyl-5-ethyl pyridine
 22940-71-2P, 2-Hydroxymethyl-5-methyl pyridine 24426-40-2P, N-Ethyl
 amino acetonitrile 52814-41-2P, 2-Acetoxymethyl-3-methyl pyridine
 63071-09-0P, 2-Hydroxymethyl-3-methyl pyridine
 RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT
 (Reactant or reagent)
 (metal complex bleach and oxidn. **catalysts** for detergent)
 IT 75-04-7, Ethylamine, reactions 100-46-9, N-Benzyl amine, reactions
 104-90-5, 5-Ethyl-2-methyl pyridine 109-81-9 111-41-1 143-33-9,
 Sodium cyanide 583-61-9, 2,3-Lutidine 589-93-5, 2,5-Lutidine
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (metal complex bleach and oxidn. **catalysts** for detergent)
 IT 260395-26-4P
 RL: IMF (Industrial manufacture); RCT (Reactant);
 PREP (Preparation); RACT (Reactant or reagent)
 (ligand; metal complex bleach and oxidn.
catalysts for detergent)
 RN 260395-26-4 HCAPLUS
 CN 1,2-Ethanediamine, N-methyl-N,N',N'-tris[(3-methyl-2-pyridinyl)methyl]-
 (9CI) (CA INDEX NAME)



RE.CNT 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

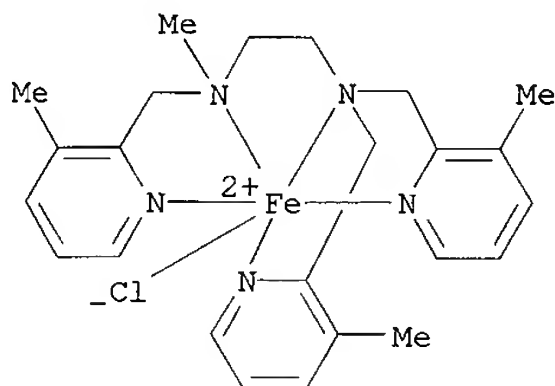
L26 ANSWER 18 OF 27 HCAPLUS COPYRIGHT 2003 ACS on STN
 AN 2000:335113 HCAPLUS
 DN 132:323323
 TI Metal complex bleach and oxidation **catalysts**
 IN Delroisse, Michel Gilbert Jose; Hage, Ronald; Kalmeijer, Robertus
 Everardus; Lamers, Christiaan; Russell, Stephen William; Whittaker, Jane;
 Feringa, Bernard Lucas; Hermant, Roelant Mathijs; Koek, Jean Hypolites;
 Rispens, Minze Theunis; Van Vliet, Ronaldus Theodorus Leonardus
 PA Unilever PLC, UK; Unilever N.V.
 SO Eur. Pat. Appl., 20 pp.
 CODEN: EPXXDW
 DT Patent
 LA English
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 1001009	A1	20000517	EP 1998-309169	19981110
	EP 1001009	B1	20030903		

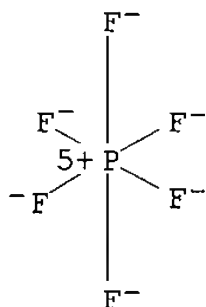
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,

IE, SI, LT, LV, FI, RO
 WO 2000027976 A1 20000518 WO 1999-EP8325 19991025
 W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU,
 CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL,
 IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD,
 MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK,
 SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY,
 KG, KZ, MD, RU, TJ, TM
 RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE,
 DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF,
 CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
 BR 9915193 A 20010814 BR 1999-15193 19991025
 EP 1129170 A1 20010905 EP 1999-955934 19991025
 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
 IE, SI, LT, LV, FI, RO
 AU 749674 B2 20020704 AU 2000-12682 19991025
 US 6140294 A 20001031 US 1999-433157 19991103
 PRAI EP 1998-309169 A 19981110
 WO 1999-EP8325 W 19991025
 OS MARPAT 132:323323
 AB A bleach and oxidn. **catalyst** is provided comprising a
catalytically active iron, manganese or copper complex including a
 specified pentadentate nitrogen-contg. ligand. The metal complex can
 activate hydrogen peroxide or peroxyacids and provides favorable stain
 removal properties. In addn., a considerably improved stability of these
 metal complex compds. in alk. aq. environment has been obtained, in
 particular at the peroxy compd. concns. generally present in the fabric
 washing liquor.
 IC ICM C11D003-395
 ICS D06L003-02; C07F015-02; C07F001-08; C07F013-00; B01J031-18
 CC 46-4 (Surface Active Agents and Detergents)
 ST iron complex bleach oxidn **catalyst**; manganese complex bleach
 oxidn **catalyst**; copper complex bleach oxidn **catalyst**
 IT Peroxy acids
 RL: TEM (Technical or engineered material use); USES (Uses)
 (bleach; metal complex bleach and oxidn. **catalysts**)
 IT Bleaching agents
 Oxidation **catalysts**
 (metal complex bleach and oxidn. **catalysts**)
 IT 15630-89-4, Sodium percarbonate
 RL: TEM (Technical or engineered material use); USES (Uses)
 (bleach precursor; metal complex bleach and oxidn. **catalysts**)
 IT 7722-84-1, Hydro-gen peroxide, uses
 RL: TEM (Technical or engineered material use); USES (Uses)
 (bleach; metal complex bleach and oxidn. **catalysts**)
 IT 260395-33-3P 260395-35-5P 260395-37-7P
 RL: CAT (Catalyst use); IMF (Industrial manufacture);
 PREP (Preparation); USES (Uses)
 (ligand; metal complex bleach and oxidn.
catalysts)
 IT 260395-26-4P 260395-27-5P 260395-28-6P
 260395-29-7P 260395-30-0P 260395-31-1P
 RL: IMF (Industrial manufacture); RCT (Reactant);
 PREP (Preparation); RACT (Reactant or reagent)
 (ligand; metal complex bleach and oxidn.
catalysts)
 IT 21324-39-0, Sodium hexafluorophosphate
 RL: RCT (Reactant); RACT (Reactant or reagent)

(ligand; metal complex bleach and oxidn. **catalysts**)
 IT 110-72-5P 768-61-6P, 2-Hydroxymethyl-5-ethyl pyridine 772-71-4P,
 2-Acetoxyethyl-5-methyl pyridine 3010-05-7P, N-Benzyl amino
 acetonitrile 4152-09-4P 21852-60-8P, 2-Acetoxyethyl-5-ethyl pyridine
 22940-71-2P, 2-Hydroxymethyl-5-methyl pyridine 24426-40-2P, N-Ethyl
 amino acetonitrile 52814-41-2P, 2-Acetoxyethyl-3-methyl pyridine
 63071-09-0P, 2-Hydroxymethyl-3-methyl pyridine
 RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT
 (Reactant or reagent)
 (metal complex bleach and oxidn. **catalysts**)
 IT 75-04-7, Ethylamine, reactions 100-46-9, N-Benzyl amine, reactions
 104-90-5, 5-Ethyl-2-methyl pyridine 143-33-9, Sodium cyanide 589-93-5,
 2,5-Lutidine
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (metal complex bleach and oxidn. **catalysts**)
 IT 260395-33-3P
 RL: IMF (Industrial manufacture); RCT (Reactant);
 PREP (Preparation); RACT (Reactant or reagent)
 (ligand; metal complex bleach and oxidn.
catalysts)
 RN 260395-33-3 HCAPLUS
 CN Iron(1+), chloro[N-methyl-N,N',N'-tris[(3-methyl-2-pyridinyl-
 .kappa.N)methyl]-1,2-ethanediamine-.kappa.N,.kappa.N']-,
 hexafluorophosphate(1-) (9CI) (CA INDEX NAME)
 CM 1
 CRN 260395-32-2
 CMF C24 H31 Cl Fe N5
 CCI CCS



CM 2
 CRN 16919-18-9
 CMF F6 P
 CCI CCS



RE.CNT 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L26 ANSWER 19 OF 27 HCAPLUS COPYRIGHT 2003 ACS on STN

AN 2000:161523 HCAPLUS

DN 132:209505

TI Bleaching fabrics by atmospheric oxygen in the presence of transition metal complex **catalysts**

IN Appel, Adrianus Cornelis Maria; Carina, Riccardo Filippo; Delroisse, Michel Gilbert Jose; Feringa, Bernard Lucas; Girerd, Jean-jacques; Hage, Ronald; Kalmeijer, Robertus Everardus; Martens, Constantinus Franciscus; Peelen, Jacobus Carolina Johannes; Que, Lawrence; Swarthoff, Ton; Tetard, David; Thornthwaite, David; Tiwari, Laxmikant; Thijssen, Rob; Twisker, Robin Stefan; Veerman, Simon Marinus; Van Der Voet, Gerrit; Smith, Richard George

PA Unilever Plc, UK; Unilever Nv; Hindustan Lever Limited

SO PCT Int. Appl., 86 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 13

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000012808	A1	20000309	WO 1999-GB2878	19990901
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
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AU 9956370	A1	20000321	AU 1999-56370	19990901
US 6245115	B1	20010612	US 1999-388171	19990901
EP 1109965	A1	20010627	EP 1999-943085	19990901
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BR 9913367	A	20020129	BR 1999-13367	19990901
WO 2000060043	A1	20001012	WO 2000-EP2587	20000322
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 WO 2000060044 A1 20001012 WO 2000-EP2590 20000322
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 EP 1165738 A1 20020102 EP 2000-918830 20000322
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 BR 2000009457 A 20020108 BR 2000-9457 20000322
 US 6617299 B1 20030909 US 2000-539756 20000331
 WO 2001016268 A1 20010308 WO 2000-EP7561 20000804
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 WO 2001016269 A1 20010308 WO 2000-EP7563 20000804
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 WO 2000-EP2590 W 20000322
 WO 2000-EP7561 W 20000804
 WO 2000-EP7563 W 20000804
 WO 2000-EP8075 W 20000816
 WO 2000-EP8076 W 20000816
 WO 2000-EP8078 W 20000816
 US 2000-650134 A3 20000829

OS MARPAT 132:209505

AB Fabrics such as laundered fabrics are bleached by atm. O by treatment with transition metal complexes, that are applied in the dry form or in aq. solns. (such as in laundering) or in nonaq. solns. (such in dry cleaning). The method can confer cleaning benefits to the textile after the treatment. A typical complex was manufd. by reaction of 2-pyridyl ketone oxime 1 h in EtOH-NH4OH contg. NH4OAc with Zn at reflux, reaction of the resulting bis(pyridin-2-yl)methylamine 40 h with picolyl chloride hydrochloride in aq. NaOH, redn. of the perchlorate salt of the 2nd intermediate with LiAlH4, lithiation of the 3rd intermediate with BuLi, methylation of 4th intermediate with MeI, and complexation of the resulting ligand with Fe(ClO4)2.6H2O.

IC ICM D06L003-02

CC 46-5 (Surface Active Agents and Detergents)

Section cross-reference(s): 78

ST bleaching laundered fabric atm oxygen transition metal complex **catalyst**; pyridinylmethyl bispyridinylaminoethane iron complex **catalyst** manuf bleaching laundered fabric

IT Bleaching

Oxidation **catalysts**

(compns. contg. transition metal complex **catalysts** for bleaching laundered fabrics with atm. oxygen)

IT Transition metal complexes

RL: **CAT (Catalyst use)**; USES (Uses)

(compns. contg. transition metal complex **catalysts** for bleaching laundered fabrics with atm. oxygen)

IT 16941-11-0, Ammonium hexafluorophosphate 21324-39-0, Sodium hexafluorophosphate

RL: **RCT (Reactant)**; **RACT (Reactant or reagent)**

(complex precursor; compns. contg. transition metal complex **catalysts** for bleaching laundered fabrics with atm. oxygen)

IT 7439-96-5D, Manganese, bis(pyridinylmethyl)dimethylethylenediamine complex, uses 61920-87-4 108114-13-2 116633-52-4 129766-11-6 129766-12-7 133523-08-7 136074-05-0 136768-57-5D, manganese complex 157966-71-7 167695-89-8 260395-40-2 260395-42-4 260395-44-6 260416-70-4 260416-73-7

RL: **CAT (Catalyst use)**; USES (Uses)

(compns. contg. transition metal complex **catalysts** for bleaching laundered fabrics with atm. oxygen)

IT 223504-13-0P 223504-16-3P 252981-14-9P 252981-15-0P 260395-33-3P 260395-35-5P 260395-37-7P 260395-39-9P

RL: **CAT (Catalyst use)**; **IMF (Industrial manufacture)**;

PREP (Preparation); USES (Uses)

(compns. contg. transition metal complex **catalysts** for **bleaching** laundered fabrics with atm. oxygen)

IT 768-61-6P, 2-Hydroxymethyl-5-ethyl pyridine 772-71-4P, 2-Acetoxymethyl-5-methylpyridine 3010-05-7P, N-Benzyl amino acetonitrile 3099-28-3P, 2,6-Dichloromethylpyridine. 4152-09-4P, N-Benzylethylenediamine 5371-70-0P, 4-Chloro-2,6-pyridinedicarboxylic acid dimethyl ester 18522-92-4P, Sodium p-toluenesulfonamide 21852-60-8P, 2-Acetoxymethyl-5-ethyl pyridine 22940-71-2P, 2-Hydroxymethyl-5-methylpyridine 24426-40-2P, N-Ethylaminoacetonitrile 52814-41-2P, 2-Acetoxymethyl-3-methylpyridine. 58088-50-9P 63071-09-0P, 2-Hydroxymethyl-3-methyl pyridine 89561-22-8P 98572-18-0P 260395-23-1P

RL: **IMF (Industrial manufacture)**; **RCT (Reactant)**;

PREP (Preparation); **RACT (Reactant or reagent)**

(ligand precursor; compns. contg. transition metal
complex catalysts for **bleaching** laundered
fabrics with atm. oxygen)

IT 50-00-0, Formalin, reactions 70-55-3 74-88-4, Methyl iodide, reactions
75-04-7, Ethylamine, reactions 100-39-0 100-46-9, N-Benzyl amine,
reactions 104-90-5, 5-Ethyl-2-methyl pyridine 109-72-8, Butyllithium,
reactions 109-76-2, 1,3-Propanediamine 109-81-9, N-
Methylethylenediamine 110-72-5, N-Ethylethylenediamine 111-41-1
583-61-9, 2,3-Dimethylpyridine 589-93-5, 2,5-Lutidine 1195-59-1,
2,6-Pyridinedimethanol 1562-95-4, 2-Pyridyl ketone oxime 4377-33-7,
2-Chloro-methylpyridine 6959-47-3, Picolylchloride hydrochloride
7440-23-5, Sodium, reactions 7601-89-0, Sodium perchlorate
RL: RCT (Reactant); RACT (Reactant or reagent)
(ligand precursor; compns. contg. transition metal complex
catalysts for **bleaching** laundered fabrics with atm. oxygen)

IT 80384-94-7P 115078-45-0P 223504-10-7P
252909-23-2P 260395-25-3P 260395-26-4P
260395-27-5P 260395-28-6P 260395-29-7P
260395-30-0P 260395-31-1P
RL: IMF (Industrial manufacture); RCT (Reactant);
PREP (Preparation); RACT (Reactant or reagent)
(ligand; compns. contg. transition metal **complex**
catalysts for **bleaching** laundered fabrics with atm.
oxygen)

IT 75-05-8, Acetonitrile, reactions 115078-43-8 136768-57-5
172300-86-6
RL: RCT (Reactant); RACT (Reactant or reagent)
(ligand; compns. contg. transition metal **complex**
catalysts for **bleaching** laundered fabrics with atm.
oxygen)

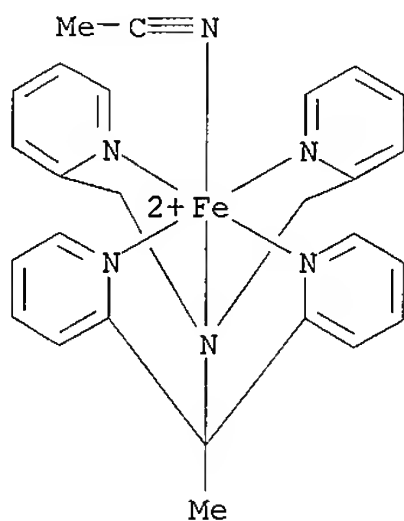
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RL: RCT (Reactant); RACT (Reactant or reagent);
PREP (Preparation); RACT (Reactant or reagent)
(compns. contg. transition metal **complex catalysts**
for **bleaching** laundered fabrics with atm. oxygen)

RN 223504-13-0 HCAPLUS

CN Iron(2+), (acetonitrile)[.alpha.-methyl-.alpha.-(2-pyridinyl-.kappa.N)-N,N-
bis[(2-pyridinyl-.kappa.N)methyl]-2-pyridinemethanamine-
.kappa.N1,.kappa.N2]-, (OC-6-43)-, diperchlorate (9CI) (CA INDEX NAME)

CM 1

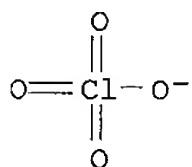
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CCI CCS



CM 2

CRN 14797-73-0

CMF Cl O4



RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L26 ANSWER 20 OF 27 HCAPLUS COPYRIGHT 2003 ACS on STN
AN 2000:161417 HCAPLUS
DN 132:209503
TI Composition and method for bleaching a substrate such as laundered fabrics
with atmospheric oxygen
IN Appel, Adrianus Cornelis Maria; Carina, Riccardo Filippo; Delroisse,
Michel Gilbert Jose; Feringa, Bernard Lucas; Girerd, Jean-jacques; Hage,
Ronald; Kalmeijer, Robertus Everardus; Martens, Constantinus Franciscus;
Peelen, Jacobus Carolina Johannes; Que, Lawrence; Swarthoff, Ton; Tetard,
David; Thornthwaite, David; Tiwari, Laxmikant; Thijssen, Rob; Twisker,
Robin Stefan; Veerman, Simon Marinus; Van Der Voet, Gerrit
PA Unilever Plc, UK; Unilever Nv; Hindustan Lever Limited
SO PCT Int. Appl., 83 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 13

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000012667	A1	20000309	WO 1999-GB2876	19990901
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 AU 9956368 A1 20000321 AU 1999-56368 19990901
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GB 1999-7713	A	19990401		
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WO 2000-EP8076 W 20000816
 WO 2000-EP8078 W 20000816
 WO 2000-EP8144 W 20000817
 US 2000-650134 A3 20000829

OS MARPAT 132:209503

AB A method of bleaching a substrate such as laundered fabrics is provided that comprises applying to the substrate, in an aq. medium, an transition metal complex, so that the complex **catalyzes** bleaching of the substrate by atm. oxygen. A typical complex was manufd. by reaction of 2-pyridyl ketone oxime 1 h in EtOH-NH4OH contg. NH4OAc with Zn at reflux, reaction of the resulting bis(pyridin-2-yl)methylamine 40 h with picolyl chloride hydrochloride in aq. NaOH, redn. of the perchlorate salt of the 2nd intermediate with LiAlH4, lithiation of the 3rd intermediate with BuLi, methylation of 4th intermediate with MeI, and complexation of the resulting ligand with Fe(ClO4)2.6H2O.

IC ICM. C11D003-395

CC 46-5 (Surface Active Agents and Detergents)
 Section cross-reference(s): 78

ST bleaching laundered fabric atm oxygen transition metal complex
catalyst; pyridinylmethyl bispyridinylaminoethane iron complex
 bleaching **catalyst** manuf

IT Bleaching
 Oxidation **catalysts**
 (compns. contg. transition metal complex **catalysts** for
 bleaching laundered fabrics with atm. oxygen)

IT Transition metal complexes
 RL: **CAT (Catalyst use)**; USES (Uses)
 (compns. contg. transition metal complex **catalysts** for
 bleaching laundered fabrics with atm. oxygen)

IT 16941-11-0, Ammonium hexafluorophosphate 21324-39-0, Sodium
 hexafluorophosphate
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (complex precursor; compns. contg. transition metal complex
catalysts for bleaching laundered fabrics with atm. oxygen)

IT 61920-87-4 116633-52-4 129766-11-6 129766-12-7 133523-08-7
 136074-05-0 157966-71-7 167695-89-8 260395-40-2 260395-42-4
 260395-44-6 260416-70-4 260431-32-1
 RL: **CAT (Catalyst use)**; USES (Uses)
 (compns. contg. transition metal complex **catalysts** for
 bleaching laundered fabrics with atm. oxygen)

IT 223504-13-0P 223504-16-3P 252981-14-9P
 252981-15-0P 260395-33-3P 260395-35-5P
 260395-37-7P 260395-39-9P
 RL: **CAT (Catalyst use)**; IMF (Industrial manufacture);
 PREP (Preparation); USES (Uses)
 (compns. contg. transition metal complex **catalysts**
 for bleaching laundered fabrics with atm. oxygen)

IT 768-61-6P, 2-Hydroxymethyl-5-ethyl pyridine 772-71-4P 3010-05-7P,
 N-Benzyl amino acetonitrile 3099-28-3P, 2,6-Dichloromethylpyridine.
 4152-09-4P, N-Benzylethylenediamine 5371-70-0P, 4-Chloro-2,6-
 pyridinedicarboxylic acid dimethyl ester 18522-92-4P, Sodium
 p-toluenesulfonamide 21852-60-8P, 2-Acetoxymethyl-5-ethyl pyridine
 22940-71-2P 24426-40-2P 52814-41-2P 58088-50-9P 63071-09-0P,
 2-Hydroxymethyl-3-methyl pyridine 89561-22-8P 98572-18-0P
 260395-23-1P
 RL: IMF (Industrial manufacture); RCT (Reactant);
 PREP (Preparation); RACT (Reactant or reagent)
 (ligand precursor; compns. contg. transition metal

complex catalysts for bleaching laundered fabrics with atm. oxygen)

IT 50-00-0, Formalin, reactions 70-55-3 74-88-4, Methyl iodide, reactions 75-04-7, Ethylamine, reactions 100-39-0 100-46-9, N-Benzyl amine, reactions 104-90-5, 5-Ethyl-2-methyl pyridine 109-72-8, Butyllithium, reactions 109-76-2, 1,3-Propanediamine 109-81-9, N-Methylethylenediamine 110-72-5, N-Ethylethylenediamine 111-41-1 583-61-9, 2,3-Dimethylpyridine 589-93-5, 2,5-Lutidine 1195-59-1, 2,6-Pyridinedimethanol 1562-95-4, 2-Pyridyl ketone oxime 4377-33-7, 2-Chloro-methylpyridine 6959-47-3, Picolylchloride hydrochloride 7440-23-5, Sodium, reactions 7601-89-0, Sodium perchlorate

RL: RCT (Reactant); RACT (Reactant or reagent)

(ligand precursor; compns. contg. transition metal complex

catalysts for bleaching laundered fabrics with atm. oxygen)

IT 80384-94-7P 115078-45-0P 223504-10-7P
252909-23-2P 260395-25-3P 260395-26-4P
260395-27-5P 260395-28-6P 260395-29-7P
260395-30-0P 260395-31-1P

RL: IMF (Industrial manufacture); RCT (Reactant);

PREP (Preparation); RACT (Reactant or reagent)

(ligand; compns. contg. transition metal complex

catalysts for bleaching laundered fabrics with atm. oxygen)

IT 75-05-8, Acetonitrile, reactions 115078-43-8 136768-57-5
172300-86-6

RL: RCT (Reactant); RACT (Reactant or reagent)

(ligand; compns. contg. transition metal complex

catalysts for bleaching laundered fabrics with atm. oxygen)

IT 223504-13-0P

RL: RCT (Reactant); RACT (Reactant or reagent);

PREP (Preparation); RACT (Reactant or reagent)

(compns. contg. transition metal complex catalysts
for **bleaching** laundered fabrics with atm. oxygen)

RN 223504-13-0 HCAPLUS

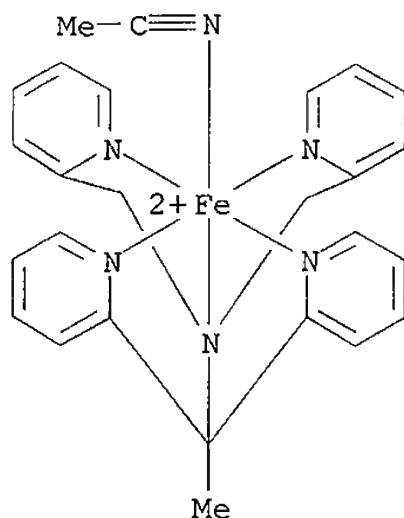
CN Iron(2+), (acetonitrile)[.alpha.-methyl-.alpha.-(2-pyridinyl-.kappa.N)-N,N-bis[(2-pyridinyl-.kappa.N)methyl]-2-pyridinemethanamine-.kappa.N1,.kappa.N2]-, (OC-6-43)-, diperchlorate (9CI) (CA INDEX NAME)

CM 1

CRN 223504-12-9

CMF C26 H26 Fe N6

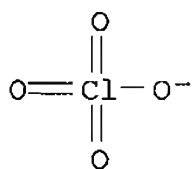
CCI CCS



CM 2

CRN 14797-73-0

CMF Cl O4



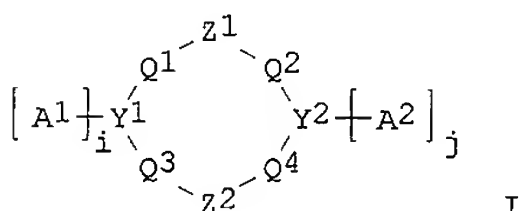
RE.CNT 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L26 ANSWER 21 OF 27 HCAPLUS COPYRIGHT 2003 ACS on STN
AN 1999:811241 HCAPLUS
DN 132:51495
TI Bleach **catalysts**, ion pairs, complexes, and detergent
formulations containing them for bleaching and cleaning of fabrics
IN Banse, Frederic; Carina, Riccardo; Delroisse, Michel; Girerd,
Jean-Jacques; Hage, Ronald; Simaan, Jalila Ariane; Tetard, David
PA Unilever PLC, UK; Unilever NV; Hindustan Lever Limited
SO PCT Int. Appl., 43 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 13

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9965905	A1	19991223	WO 1999-GB1850	19990610
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK,				

ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG,
 CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

CA 2333649	AA	19991223	CA 1999-2333649	19990610
AU 9942821	A1	20000105	AU 1999-42821	19990610
AU 749512	B2	20020627		
BR 9911248	A	20010313	BR 1999-11248	19990610
EP 1087969	A1	20010404	EP 1999-957058	19990610
EP 1087969	B1	20030409		
R: BE, DE, ES, FR, GB, IT				
ZA 2000006985	A	20011128	ZA 2000-6985	20001128
ZA 2001001671	A	20020228	ZA 2001-1671	20010228
ZA 2001001672	A	20020228	ZA 2001-1672	20010228
PRAI GB 1998-12916	A	19980615		
GB 1998-19046	A	19980901		
GB 1999-6474	A	19990319		
WO 1999-GB1850	W	19990610		
OS MARPAT 132:51495				
GI				



- AB A bleach **catalyst** is a complex of a macrocyclic ligand I [Z1, Z2 = monocyclic or polycyclic arom. ring structures optionally contg. .gtoreq.1 heteroatoms, each arom. ring structure being optionally substituted by .gtoreq.1 substituents Y1 and Y2 selected from C, N, O, Si, P and S atoms; A1, A2 = H, alkyl, alkenyl and cycloalkyl, each of alkyl, alkenyl and cycloalkyl being optionally substituted, electron donating groups and electron withdrawing groups; i, j = 0, 1 and 2 to complete the valency of the groups Y1 and Y2; divalent Q1-Q4 = [(A3A4C)bY3a(CA5A6)c]d; where 10> a + b + c + d .gtoreq.2; each Y3 = O, S, SO, SO2, (G1)(G2)NC(O), aryl, heteroaryl, P, and P(O); A3-A6 = A1 and A2].
- IC ICM C07D471-18
 ICS C11D003-39; C07D471-18; C07D257-00; C07D221-00; C07D221-00
- CC 46-5 (Surface Active Agents and Detergents)
 Section cross-reference(s): 27
- ST transition metal complex bleach **catalyst**; diazapyridinophane ligand transition metal complex
- IT Bleaching agents
 (catalyst complex of transition metal and (substituted) diazapyridinophane; bleach **catalysts** for bleaching and cleaning of fabrics)
- IT 252981-14-9P 252981-15-0P 252981-16-1P 252981-17-2P 252981-19-4P
 RL: CAT (Catalyst use); IMF (Industrial manufacture); PREP (Preparation); USES (Uses)
 (bleach **catalyst**; bleach **catalysts** for bleaching and cleaning of fabrics)
- IT 3099-28-3P, 2,6-Dichloromethylpyridine 5371-70-0P 89561-22-8P
 252909-23-2P

RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
 (bleach **catalysts** for bleaching and cleaning of fabrics)

IT 64-18-6, Formic acid, reactions 120-80-9, 1,2-Benzenediol, reactions 499-51-4, 4-Hydroxy-2,6-pyridine dicarboxylic acid 7719-09-7, Thionyl chloride 18522-92-4 115078-43-8
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (bleach **catalysts** for bleaching and cleaning of fabrics)

IT 7783-53-1, Manganese fluoride (MnF₃)
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (complexation; bleach **catalysts** for bleaching and cleaning of fabrics)

IT 252909-26-5P
 RL: IMF (Industrial manufacture); RCT (Reactant);
 PREP (Preparation); RACT (Reactant or reagent)
 (intermediate ligand; bleach **catalysts** for bleaching and cleaning of fabrics)

IT 98572-18-0P
 RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
 (intermediate; bleach **catalysts** for bleaching and cleaning of fabrics)

IT 115078-45-0P 252909-27-6P
 RL: IMF (Industrial manufacture); RCT (Reactant);
 PREP (Preparation); RACT (Reactant or reagent)
 (ligand; bleach **catalysts** for bleaching and cleaning of fabrics)

IT 10025-77-1, Iron trichloride hexahydrate
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (reaction with diazapyridinophane ligand; bleach **catalysts** for bleaching and cleaning of fabrics)

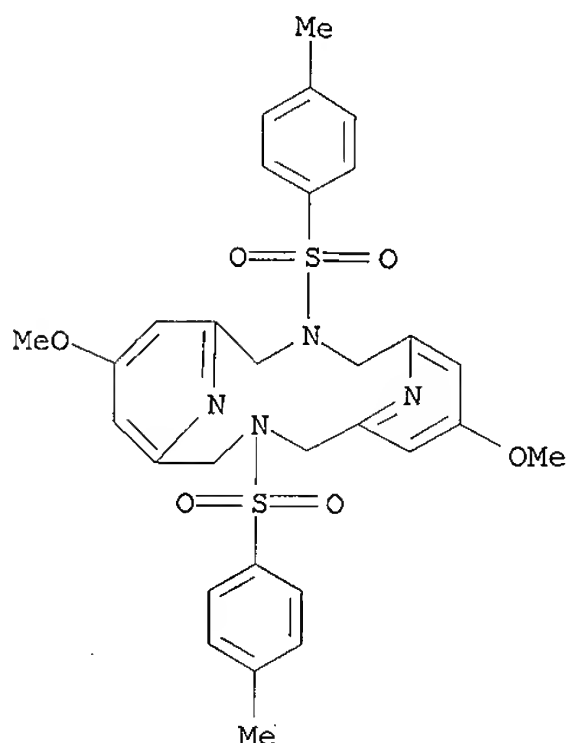
IT 10026-13-8
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (reaction with hydroxy-2,6-pyridine dicarboxylic acid; bleach **catalysts** for bleaching and cleaning of fabrics)

IT 1195-59-1, 2,6-Pyridinedimethanol
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (reaction with thionyl chloride; bleach **catalysts** for bleaching and cleaning of fabrics)

IT 252909-26-5P
 RL: IMF (Industrial manufacture); RCT (Reactant);
 PREP (Preparation); RACT (Reactant or reagent)
 (intermediate ligand; bleach **catalysts** for bleaching and cleaning of fabrics)

RN 252909-26-5 HCAPLUS

CN 3,11,17,18-Tetraazatricyclo[11.3.1.15,9]octadeca-1(17),5,7,9(18),13,15-hexaene, 7,15-dimethoxy-3,11-bis[(4-methylphenyl)sulfonyl]- (9CI) (CA INDEX NAME)

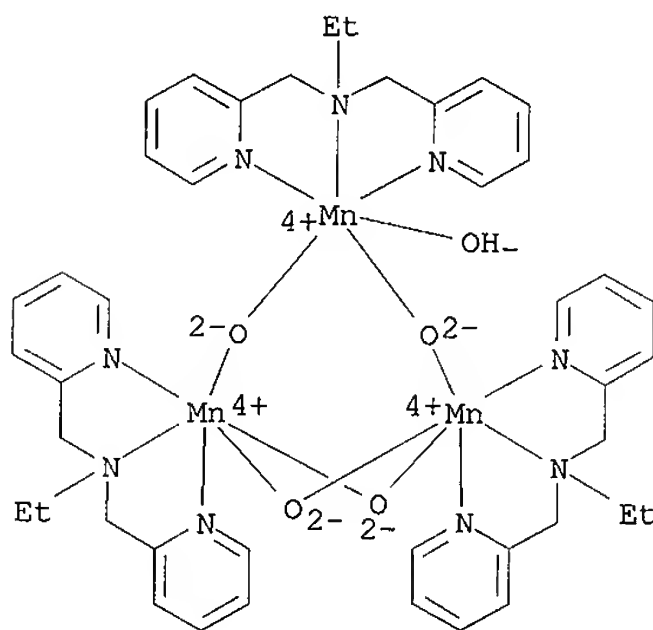


RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L26 ANSWER 22 OF 27 HCAPLUS COPYRIGHT 2003 ACS on STN
AN 1999:727926 HCAPLUS
DN 131:352875
TI Bleach activation **catalysts** and peroxy compound-based bleach
compositions containing them
IN Nomura, Yasuo; Kubozono, Takayasu; Yamamoto, Nobuyuki
PA Lion Corp., Japan
SO Jpn. Kokai Tokkyo Koho, 8 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 2

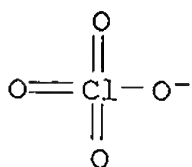
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 11314039	A2	19991116	JP 1999-46354	19990224
PRAI	JP 1998-58920		19980224		
OS	MARPAT 131:352875				
AB	The catalysts with good stability in H ₂ O are tri- or tetranuclear Mn complexes having N,N-bis(2-pyridyl)amine or its N-lower alkyl derivs. as ligands. Thus, Mn(OAc) ₃ ·2H ₂ O was treated with N,N-bis(2-pyridylmethyl)-N-methylamine in EtOH and further treated with HClO ₄ to give tetra(μ-oxo)mono(hydroxo)tris[N,N-bis(2-pyridylmethyl)-N-methylamine]trimanganese(IV,IV,IV) perchlorate, which improved bleaching efficiency of a NaHCO ₃ -Na ₂ CO ₃ soln.				
IC	ICM B01J031-22 ICS C11D007-18; C11D007-32; C11D007-54; D06L003-02				
CC	46-6 (Surface Active Agents and Detergents) Section cross-reference(s): 67, 78				
IT	Bleaching agents Oxidation catalysts (polynuclear manganese complexes as catalysts for peroxy				

bleach activation)
 IT 142761-39-5P 203178-24-9P 203178-26-1P
 250356-83-3P
 RL: CAT (Catalyst use); IMF (Industrial manufacture);
 PRP (Properties); PREP (Preparation); USES (Uses)
 (polynuclear manganese complexes as catalysts for
 peroxy bleach activation)
 IT 19411-85-9, 2-Pyridinemethanamine, N-methyl-N-(2-pyridinylmethyl)-
 142723-81-7, 2-Pyridinemethanamine, N-ethyl-N-(2-pyridinylmethyl)-
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (polynuclear manganese complexes as catalysts for
 peroxy bleach activation)
 IT 144-55-8, Sodium hydrogen carbonate, uses 497-19-8, Sodium carbonate,
 uses
 RL: TEM (Technical or engineered material use); USES (Uses)
 (polynuclear manganese complexes as catalysts for peroxy
 bleach activation)
 IT 142761-39-5P
 RL: RCT (Reactant); RACT (Reactant or reagent); PRP
 (Properties); PREP (Preparation); USES (Uses)
 (polynuclear manganese complexes as catalysts for
 peroxy bleach activation)
 RN 142761-39-5 HCAPLUS
 CN Manganese(3+), tris[N-ethyl-N-[(2-pyridinyl-.kappa.N)methyl]-2-
 pyridinemethanamine-.kappa.N1,.kappa.N2]hydroxytetra-.mu.-oxotri-,
 stereoisomer, triperchlorate (9CI) (CA INDEX NAME)
 CM 1
 CRN 142761-38-4
 CMF C42 H52 Mn3 N9 O5
 CCI CCS



CM 2
 CRN 14797-73-0

CMF Cl O4



L26 ANSWER 23 OF 27 HCAPLUS COPYRIGHT 2003 ACS on STN
 AN 1999:262098 HCAPLUS
 DN 130:313501
 TI Bleach activation using pentadentate iron complexes
 IN Beers, Olaf Cornelis Petrus; Gribnau, Michiel Carolus Maria; Hage, Ronald;
 Hermant, Roelant Mathijs; Kalmeijer, Robertus Everardus; Koek, Jean
 Hypolites; Lamers, Christiaan; Russell, Stephen William; Twisker, Robin
 Stefan; Feringa, Bernard Lucas; Roelfes, Johannes Gerhardus
 PA Unilever PLC, UK; Unilever N.V.
 SO Eur. Pat. Appl., 12 pp.
 CODEN: EPXXDW
 DT Patent
 LA English
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 909809	A2	19990421	EP 1998-307975	19980930
	EP 909809	A3	19990721		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	CA 2248476	AA	19990401	CA 1998-2248476	19980928
	BR 9803859	A	19991207	BR 1998-3859	19981001
	ZA 9808963	A	20000403	ZA 1998-8963	19981001
PRAI	EP 1997-203019	A	19971001		
OS	MARPAT 130:313501				
AB	A bleach and oxidn. catalyst is provided comprising a catalytically active Fe complex including a defined pentadentate N contg. ligand. This type of Fe complex can activate hydrogen peroxide or peroxy acids and has favorable stain removal and remarkable dye transfer inhibition properties. In addn., a considerably improved stability of these Fe complex compds. in alk. aq. environment was obtained, in particular at the peroxy compd. concns. generally present in the fabric washing liquor.				
IC	ICM C11D003-395				
CC	46-4 (Surface Active Agents and Detergents)				
IT	223504-13-0P 223504-16-3P				
	RL: IMF (Industrial manufacture); NUU (Other use, unclassified); PEP (Physical, engineering or chemical process); PREP (Preparation); PROC (Process); USES (Uses) (activator; activation of peroxy bleaching compns. using pentadentate nitrogen iron complexes)				
IT	1539-42-0P, Bis(pyridin-2-yl)methylamine				
	RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent) (intermediate; activation of peroxy bleaching compns. using pentadentate nitrogen iron complexes)				
IT	223504-10-7P				

RL: RCT (Reactant); SPN (Synthetic preparation);
 PREP (Preparation); RACT (Reactant or reagent)
 (ligand; activation of peroxy bleaching compns.
 using pentadentate nitrogen iron complexes)

IT 223504-13-0P

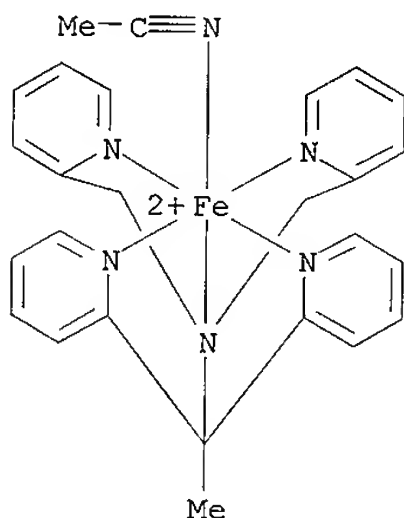
RL: RCT (Reactant); SPN (Synthetic preparation);
 PREP (Preparation); RACT (Reactant or reagent); PROC
 (Process); USES (Uses)
 (activator; activation of peroxy bleaching compns. using
 pentadentate nitrogen iron complexes)

RN 223504-13-0 HCAPLUS

CN Iron(2+), (acetonitrile)[.alpha.-methyl-.alpha.-(2-pyridinyl-.kappa.N)-N,N-
 bis[(2-pyridinyl-.kappa.N)methyl]-2-pyridinemethanamine-
 .kappa.N1,.kappa.N2]-, (OC-6-43)-, diperchlorate (9CI) (CA INDEX NAME)

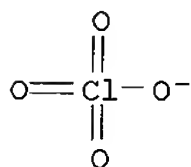
CM 1

CRN 223504-12-9
 CMF C26 H26 Fe N6
 CCI CCS



CM 2

CRN 14797-73-0
 CMF Cl O4



L26 ANSWER 24 OF 27 HCAPLUS COPYRIGHT 2003 ACS on STN
 AN 1998:388926 HCAPLUS
 DN 129:110447
 TI Transition metal complex bleaching catalysts and peroxy

bleaching compositions containing them
 IN Yamamoto, Nobuyuki; Kubozono, Takayasu; Ono, Junji; Fukuda, Yutaka
 PA Lion Corp., Japan
 SO Jpn. Kokai Tokkyo Koho, 10 pp.
 CODEN: JKXXAF

DT Patent
 LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 10156188	A2	19980616	JP 1996-322963	19961203
PRAI	JP 1996-322963		19961203		

OS MARPAT 129:110447

GI For diagram(s), see printed CA Issue.

AB The bleaching **catalysts** comprise (A) N-contg. ligands
 [A(CHR1)n]2N(CHR3)pXr(CHR4)qN[(CHR2)mB]2 or I [X = CR5(OH), NR5, O, Q1; Y
 = CR5(OH), Q1; A, B = NR6R7, N:CR3R4, Q2-Q5; R1-R5, R15, R16 = H,
 (substituted) alkyl, cycloalkyl, aryl; each R8 = (substituted) alkyl,
 alkoxy, halo, CN, NR12R13, N:R12, N+R12R13R14, pyridyl, pyridinium, SO3H,
 thienyl, CO2H, OH; R6, R7, R9-R14 = H, OH, (substituted) alkyl,
 cycloalkyl, aryl; m, n = 0-2; p, q = 0-3; r = 0, 1; s = 2-5; t = 0-4; u =
 2-7; v, w = 0-7] and (B) transition metals. The bleaching compns. contain
 the above bleaching **catalysts** and peroxy compds. Thus, a
 bleaching compn. contg. H2O2 and a Mn complex with N,N,N',N'-tetrakis[(2-
 pyridyl)methyl]-1,3-diamino-2-propanol [prepd. from 2-
 (chloromethyl)pyridine and 1,3-diamino-2-propanol] showed good bleaching
 with respect to stains from curry, red wine, and tea.

IC ICM B01J031-22

ICS C11D003-395; C11D007-54; D06L003-00; D21C009-16

CC 46-5 (Surface Active Agents and Detergents)

ST transition metal complex bleaching **catalyst**; peroxy bleaching
 compn transition metal complex

IT Detergents

(laundry; peroxy bleaching compns. contg. transition metal complex
 bleaching **catalysts**)

IT Bleaching agents

Oxidation **catalysts**

(peroxy bleaching compns. contg. transition metal complex bleaching
catalysts)

IT 16858-02-9P, N,N,N',N'-Tetrakis[(2-pyridyl)methyl]ethylenediamine

RL: CAT (Catalyst use); IMF (Industrial manufacture);

PREP (Preparation); USES (Uses)

(ligand; peroxy bleaching compns. contg. transition
 metal complex bleaching **catalysts**)

IT 7439-96-5DP, Manganese, 1,3-bis[bis(2-pyridylmethyl)amino]-2-propanol
 complex, uses 122413-32-5DP, manganese complex

RL: CAT (Catalyst use); IMF (Industrial manufacture);

PRP (Properties); PREP (Preparation); USES (Uses)

(peroxy bleaching compns. contg. transition metal
 complex bleaching **catalysts**)

IT 107-15-3, Ethylenediamine, reactions 616-29-5, 1,3-Diamino-2-propanol
 6959-47-3, 2-(Chloromethyl)pyridine hydrochloride

RL: RCT (Reactant); RACT (Reactant or reagent)

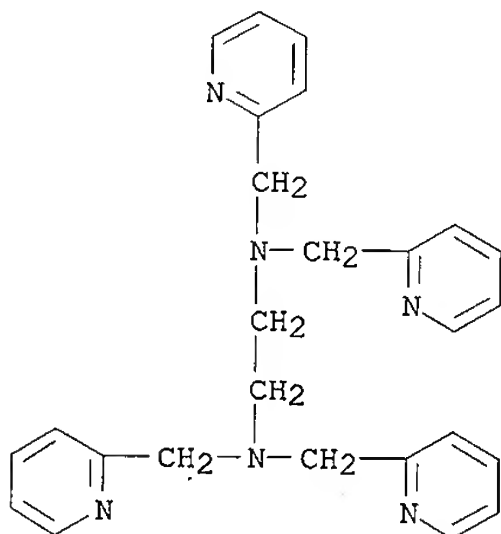
(peroxy bleaching compns. contg. transition metal complex bleaching
catalysts)

IT 7722-84-1, Hydrogen peroxide, uses

RL: TEM (Technical or engineered material use); USES (Uses)

(peroxy bleaching compns. contg. transition metal complex bleaching

catalysts)
 IT 16858-02-9P, N,N,N',N'-Tetrakis[(2-pyridyl)methyl]ethylenediamine
 RL: CAT (Catalyst use); IMF (Industrial manufacture);
 PREP (Preparation); PREP (Preparation)
 (ligand; peroxy bleaching compns. contg. transition
 metal complex bleaching catalysts)
 RN 16858-02-9 HCAPLUS
 CN 1,2-Ethanediamine, N,N,N',N'-tetrakis(2-pyridinylmethyl)- (9CI) (CA INDEX
 NAME)



L26 ANSWER 25 OF 27 HCAPLUS COPYRIGHT 2003 ACS on STN
 AN 1998:31385 HCAPLUS
 DN 128:76852
 TI Metal complex **catalysts** for oxidative bleaching in laundry
 IN Hermant, Roelant Mathijs; Jong, Bas A. M. J.
 PA Unilever N.V., Neth.; Unilever PLC
 SO PCT Int. Appl., 27 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 9748787	A1	19971224	WO 1997-EP2322	19970429
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
CA 2257891	AA	19971224	CA 1997-2257891	19970429
AU 9728928	A1	19980107	AU 1997-28928	19970429
EP 906402	A1	19990407	EP 1997-922991	19970429
R: DE, ES, FR, GB, IT				
BR 9709798	A	19990810	BR 1997-9798	19970429
ZA 9705068	A	19981209	ZA 1997-5068	19970609
US 6022490	A	20000208	US 1997-878742	19970619

PRAI EP 1996-201702 19960619
 WO 1997-EP2322 19970429

AB A bleach and oxidn. **catalyst** is provided comprising a **catalytically** active metal complex having a poly-dentate ligand contg. at least 6 hetero atoms. Such metal complexes can activate hydrogen peroxide, peroxy acids or mol. oxygen and were found to have both favorable stain removal and remarkable dye transfer inhibition properties. A typical complex was manufd. by reaction of 2-picoly l chloride with ethylenediamine, and complexation of the ligand with Fe(ClO₄)₂·6H₂O.

IC ICM C11D003-39
 ICS B01J031-18; C07F015-02; C07F013-00

CC 46-5 (Surface Active Agents and Detergents)

ST laundry bleach oxidative **catalyst** metal complex; iron chloropicoline ethylenediamine complex bleach **catalyst**

IT Bleaching
 Oxidation **catalysts**
 (metal complex **catalysts** for oxidative bleaching in laundry)

IT Peroxy acids
 RL: PEP (Physical, engineering or chemical process); PROC (Process)
 (metal complex **catalysts** for oxidative bleaching in laundry)

IT 107-15-3, 1,2-Ethanediamine, reactions 4377-33-7, 2-Picolyl chloride 4741-99-5, N,N'-Bis(2-aminoethyl)-1,3-propanediamine
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (ligand precursor; metal complex **catalysts** for oxidative bleaching in laundry)

IT 16858-02-9P 200719-69-3P, 1,1,4,8,11,11-Hexakis(pyridin-2-ylmethyl)-1,4,8,11-tetraazaundecane
 RL: IMF (Industrial manufacture); RCT (Reactant);
 PREP (Preparation); RACT (Reactant or reagent)
 (ligand; metal complex **catalysts** for oxidative bleaching in laundry)

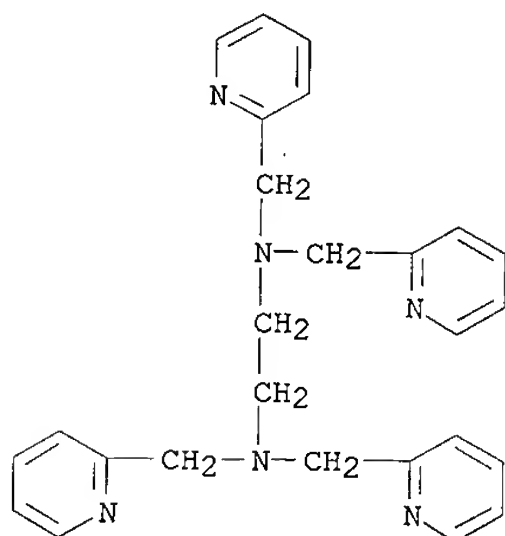
IT 61920-87-4P 200720-72-5P
 RL: CAT (Catalyst use); IMF (Industrial manufacture);
 PREP (Preparation); USES (Uses)
 (metal complex **catalysts** for oxidative bleaching in laundry)

IT 7722-84-1, Hydrogen peroxide (H₂O₂), processes
 RL: PEP (Physical, engineering or chemical process); PROC (Process)
 (metal complex **catalysts** for oxidative bleaching in laundry)

IT 16858-02-9P
 RL: CAT (Catalyst use); IMF (Industrial manufacture);
 PREP (Preparation); RACT (Reactant or reagent)
 (ligand; metal complex **catalysts** for oxidative bleaching in laundry)

RN 16858-02-9 HCAPLUS

CN 1,2-Ethanediamine, N,N,N',N'-tetrakis(2-pyridinylmethyl)- (9CI) (CA INDEX NAME)



L26 ANSWER 26 OF 27 HCAPLUS COPYRIGHT 2003 ACS on STN
 AN 1998:31316 HCAPLUS
 DN 128:90357
 TI Iron complexes for bleach activation and stereospecific oxidation
catalysts
 IN Que, Lawrence, Jr.; Kim, Cheal; Kim, Jinheung; Zang, Yan
 PA University of Minnesota, USA
 SO PCT Int. Appl., 40 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9748710	A1	19971224	WO 1997-US10764	19970620
W: CA, JP, KR, SG				
RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
US 5850086	A	19981215	US 1996-670794	19960621
US 6107528	A	20000822	US 1998-204132	19981202
PRAI US 1996-670794	A	19960621		

AB The complexes [LmFemXn]zYq (L = tetradentate, non-tetraaza, macrocyclic ligand; X = nitrile; Y = counterion; m = 1-3; n = 0-7; z = charge of complex; q = z/charge Y) are stable to oxidn. and useful as activators for bleaches in detergents and as **catalysts** for stereosp. oxidn. The reaction of equimolar amts. of tris(2-pyridinylmethyl)amine (I) perchlorate and Fe(ClO4)2.6H2O in MeCN gave 92% [Fe(I)(MeCN)2](ClO4)2.2H2O (II). Use of II to activate H2O2 in bleaching detergents and as a **catalyst** in the oxidn. of cycloalkenes to cycloalkenols and of cycloalkanes to cycloalkanols are exemplified.

IC ICM C07F015-02
 ICS C11D003-39; B01J031-18; C07B033-00

CC 46-6 (Surface Active Agents and Detergents)

ST iron complex **catalyst** oxidn; bleach activator iron complex; detergent bleach activator; cycloalkane oxidn **catalyst**; cycloalkene oxidn **catalyst**; trispyridylmethylamine iron complex

IT Amines, uses
 RL: **CAT (Catalyst use)**; **USES (Uses)**
 (heterocyclic, iron complexes; iron complexes for bleach activation and stereospecific oxidn. **catalysts**)

IT Cycloalkanes
Cycloalkenes
RL: RCT (Reactant); RACT (Reactant or reagent)
(iron complexes as **catalysts** for oxidn. of cycloalkanes)

IT Nitriles, uses
RL: **CAT (Catalyst use)**; **USES (Uses)**
(iron complexes; iron complexes for bleach activation and
stereospecific oxidn. **catalysts**)

IT Oxidation **catalysts**
(stereospecific; iron complexes for stereospecific oxidn.
catalysts)

IT 75-91-2, tert-Butyl hydroperoxide 7722-84-1, Hydrogen peroxide (H2O2),
reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(iron complexes as **catalysts** for oxidn. by peroxides)

IT 588-59-0, Stilbene
RL: RCT (Reactant); RACT (Reactant or reagent)
(iron complexes as **catalysts** for oxidn. of arylalkenes)

IT 110-82-7, Cyclohexane, reactions 292-64-8, Cyclooctane 2207-01-4,
cis-1,2-Dimethylcyclohexane 6876-23-9, trans-1,2-Dimethylcyclohexane
RL: RCT (Reactant); RACT (Reactant or reagent)
(iron complexes as **catalysts** for oxidn. of cycloalkanes)

IT 110-83-8, Cyclohexene, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(iron complexes as **catalysts** for oxidn. of cycloalkenes)

IT 112-24-3D, iron complexes 4608-34-8D, iron complexes 33527-91-2D, iron
complexes 64019-57-4D, iron complexes 85264-48-8D, iron complexes
113749-54-5D, iron complexes 149860-22-0D, iron complexes
200814-91-1D, iron complexes 200814-92-2D, iron complexes
200868-93-5D, iron complexes
RL: **CAT (Catalyst use)**; **USES (Uses)**
(iron complexes for bleach activation and stereospecific oxidn.
catalysts)

IT 191474-42-7P
RL: **CAT (Catalyst use)**; **IMF (Industrial manufacture)**;
PREP (Preparation); **USES (Uses)**
(iron complexes for bleach activation and
stereospecific oxidn. **catalysts**)

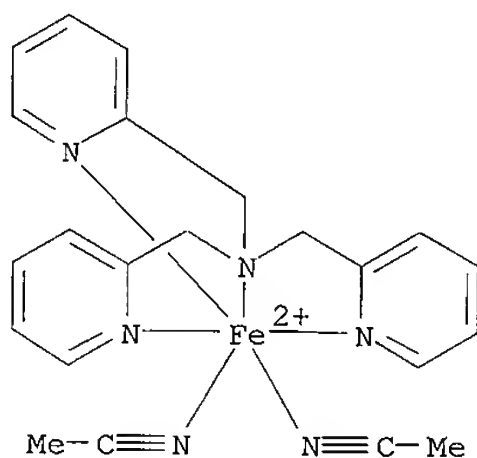
IT 191474-42-7P
RL: **CAT (Catalyst use)**; **IMF (Industrial manufacture)**;
PREP (Preparation); **USES (Uses)**
(iron complexes for bleach activation and
stereospecific oxidn. **catalysts**)

RN 191474-42-7 HCAPLUS

CN Iron(2+), bis(acetonitrile)[N,N-bis[(2-pyridinyl-.kappa.N)methyl]-2-
pyridinemethanamine-.kappa.N1,.kappa.N2]-, (OC-6-32)-, diperchlorate (9CI)
(CA INDEX NAME)

CM 1

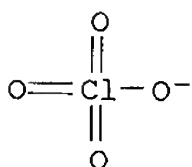
CRN 191474-41-6
CMF C22 H24 Fe N6
CCI CCS



CM 2

CRN 14797-73-0

CMF Cl 04



L26 ANSWER 27 OF 27 HCAPLUS COPYRIGHT 2003 ACS on STN
 AN 1997:537591 HCAPLUS
 DN 127:137378
 TI Bleaching system containing bis- and tris(.mu.-oxo)dimanganese complex salts
 IN Tafesh, Ahmed; Beller, Matthias; Friderichs, Vera; Reinhardt, Gerd
 PA Hoechst A.-G., Germany
 SO Eur. Pat. Appl., 11 pp.
 CODEN: EPXXDW
 DT Patent
 LA German
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 783035	A2	19970709	EP 1996-120743	19961223
	EP 783035	A3	19980225		
	R: AT, BE, CH, DE, ES, FR, GB, IT, LI, NL				
	DE 19600159	A1	19970710	DE 1996-19600159	19960104
	JP 09194886	A2	19970729	JP 1996-350981	19961227
	CA 2194342	AA	19970705	CA 1997-2194342	19970103
	US 5942152	A	19990824	US 1997-775354	19970103
PRAI	DE 1996-19600159		19960104		
OS	MARPAT 127:137378				
AB	[LMn(.mu.-O)a(.mu.-OR)bMnL]xAy [R = C2-8 acyl, L = ligands such as N,N-bis(2-pyridylmethyl)-N-methylamine and N,N,N',N'-tetrakis(2-pyridylmethyl)-1,2-ethylenediamine, A = anion, a = 1-3, b = 0 when a = 2 or 3 and 2 when a = 1, x = 2 or 3, y = amt. of A to balance the pos.]				

charge] are useful as **catalysts** for oxidn. of org. compds. in bleaching systems for textiles.

- IC ICM C11D003-39
- CC 46-5 (Surface Active Agents and Detergents)
- ST manganese complex oxidn **catalyst** bleaching textile; oxo acyl pyridylamine dimanganese oxidn **catalyst**
- IT Bleaching
Oxidation **catalysts**
(inorg. peroxide bleaching system contg. bis- and tris(.mu.-oxo)dimanganese complex salts as oxidn. **catalysts** for laundry detergents)
- IT Peroxides, uses
RL: NUU (Other use, unclassified); PRP (Properties); USES (Uses)
(inorg. peroxide bleaching system contg. bis- and tris(.mu.-oxo)dimanganese complex salts as oxidn. **catalysts** for laundry detergents)
- IT Detergents
(laundry; inorg. peroxide bleaching system contg. bis- and tris(.mu.-oxo)dimanganese complex salts as oxidn. **catalysts** for laundry detergents)
- IT 112436-71-2, Sodium benzoyloxybenzenesulfonate
RL: NUU (Other use, unclassified); PRP (Properties); USES (Uses)
(bleaching system with sodium perborate and; inorg. peroxide bleaching system contg. bis- and tris(.mu.-oxo)dimanganese complex salts as oxidn. **catalysts** for laundry detergents)
- IT 127-09-3, Sodium acetate 156-54-7, Sodium butyrate 7601-89-0, Sodium perchlorate 16858-02-9, N,N,N',N'-Tetrakis(2-pyridylmethyl)ethylenediamine 17084-13-8, Potassium hexafluorophosphate 19411-85-9
RL: RCT (Reactant); RACT (Reactant or reagent)
(complex precursor; inorg. peroxide **bleaching** system contg. bis- and tris(.mu.-oxo)dimanganese **complex** salts as oxidn. **catalysts** for laundry detergents)
- IT 189204-03-3P 193141-14-9P 193141-16-1P
193141-18-3P 193141-20-7P
RL: CAT (Catalyst use); IMF (Industrial manufacture);
PREP (Preparation); USES (Uses)
(inorg. peroxide **bleaching** system contg. bis- and tris(.mu.-oxo)dimanganese **complex** salts as oxidn. **catalysts** for laundry detergents)
- IT 10361-76-9, Potassium peroxomonosulfate 11138-47-9, Sodium perborate 15630-89-4, Sodium percarbonate 128275-31-0
RL: NUU (Other use, unclassified); PRP (Properties); USES (Uses)
(inorg. peroxide bleaching system contg. bis- and tris(.mu.-oxo)dimanganese complex salts as oxidn. **catalysts** for laundry detergents)
- IT 16858-02-9, N,N,N',N'-Tetrakis(2-pyridylmethyl)ethylenediamine
RL: CAT (Catalyst use); IMF (Industrial manufacture);
PREP (Preparation)
(complex precursor; inorg. peroxide **bleaching** system contg. bis- and tris(.mu.-oxo)dimanganese **complex** salts as oxidn. **catalysts** for laundry detergents)
- RN 16858-02-9 HCAPLUS
- CN 1,2-Ethanediamine, N,N,N',N'-tetrakis(2-pyridinylmethyl)- (9CI) (CA INDEX NAME)

